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ABSTRACTS OF
CURRENT RESEARCH PROJECTS RELATED
TO EDUCATION, UNIVERSITY OF ILLINOIS
1967 - 1968

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ABSTRACTS OF
CURRENT RESEARCH PROJECTS RELATED
TO EDUCATION, UNIVERSITY OF ILLINOIS
1967 - 1968

Compiled and Edited by
Fred D. Carver, Coordinator, School-University Research
Donald O. Crowe, Research Assistant

December, 1967

Bureau of Educational Research
College of Education
University of Illinois
Urbana, Illinois



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FOREWORD

The purpose to be served by collecting and distributing the material contained in this booklet is communication--among University staff members and with public school people. It is intended to provide information about research activities in the College of Education and of persons in departments outside the College whose interests involve them in "educational research."

During October and November, all staff members in the College of Education were requested to report on research projects in which they were engaged (or expected to begin) during the current academic year. Staff members in departments not in the College of Education who had previously contributed were asked to report on projects that "might be of interest to persons in education."

The categories used to classify research projects were taken from the National Register of Educational Researchers (Phi Delta Kappa, 1966).

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Administration and Organization

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- Robert Henderson. Factors Related to the Proportion of Exceptional Children Receiving Special Educational Services
- Robert A. Henderson and Wilber D. Simmons. Internships for Leaders in Demonstration and Dissemination
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- Lloyd E. McCleary and Thomas Sergiovanni. Structural Features of the Role of Large School Principals
- William P. McLure. A Factor Analysis of Characteristics of Public School Systems
- William J. Schill. Concurrent Work-Education Programs
- Philip J. Schmitt. A Descriptive Investigation of Supervision of Teachers of the Deaf
- Thomas Sergiovanni, Larry Burden and Richard H. Metzcus. A Particularistic Approach to Leadership Style
- Gene F. Summers and John P. Clark. Impact of Industrialization on a Rural Region (Educational Aspects)
- Merle R. Sumption, Francis Brown, Glenn Williams, Jack Peterson and Winston Roesch. Training Program for Consultants in the Development of Community Resources

Title: Complexity, Innovativeness, and Job Satisfaction of Teachers

Principal investigators and departments:

Fred D. Carver (Edl. Adm. & Suprv.)

Thomas Sergiovanni (Edl. Adm. & Suprv.)

Purpose: To investigate relationships between and among high school innovativeness, degree of administrative complexity, and teacher job satisfaction.

Subjects: Approximately forty Illinois high schools ranging in size from 1500-2500 pupils and having a per-pupil expenditure of at least \$500.

Methods: Teachers having three or more years of service will complete a job satisfaction instrument and provide personal data; high school principals will be interviewed, and the degree of innovativeness will be determined by analysis of North Central Association data.

Major findings thus far: Data has been collected and is being analyzed.

Publication references and/or plans: Journal articles, possibly a section in the final report of the North Central Association study of innovativeness.

Cooperating/supporting groups: College of Education, Department of Educational Administration, 40 Public High Schools.

Date initiated: Spring, 1967 Estimated terminal date: Spring, 1968

Additional staff: Research assistants:

Donald O. Crowe

Robert J. Starratt

Title: Departmental Characteristics and Instructional Goal Achievement

Principal investigators and departments:

David C. Epperson (Sec. & Cont. Ed.)

William C. Wellner (Sec. & Cont. Ed.)

Purpose: 1) To develop methods for assessing the degree to which instructional goals are achieved, and 2) to identify those variables which generate a climate supportive of goal achievement in university departments.

Subjects: University students, faculty, and administration

Methods: Departmental characteristics (faculty and student characteristics, organizational structures, departmental ecology, and faculty-student climate) are being assessed by means of questionnaires and interviews. The achievement of instructional goals is being measured by achievement tests, student activities reports, attitude inventories, and departmental statistical data. Departmental characteristics that are associated with various types of instructional goal achievement will be identified.

Major findings thus far: Climates of relationship between faculty and students vary significantly from department to department.

Publication references and/or plans: "Assessing Patterns of Faculty-Student Relations Within the University" (in manuscript)

Cooperating or supporting groups: Group Effectiveness Research Laboratory

Date initiated: June, 1965 Estimated terminal date: September, 1968

Additional Staff:

Research Assistants: Floyd Wyrick
Tasso Christie
Carl Slawski

Title: A Study of School Districts 1, 2, 69, and 122, Woodford County, Illinois

Principal investigators and departments: Edward M. Griffin (Voc. Tec. Ed.)
John Dalton (Bradley University); Richard Ergen (Peoria - LaSalle Junior College)

Purpose: The purpose of the study was to evaluate the operation of the school districts and determine their immediate and long term educational needs; also to assess the feasibility of reorganizing the districts.

Subjects: School Districts

Methods: A lay citizens advisory committee was appointed by the Boards of Education to work with the University consultants on the study. The advisory committee then appointed other community citizens to the committee.

Major findings thus far: The findings were reported in the publications listed below.

Publication references and/or plans: a) Report of the Citizens' School Committee to School Districts 1, 2, 69, and 122, Woodford County, Illinois; b) ERIC - Clearinghouse on Educational Administration Center for the Advanced Study of Educational Administration, University of Oregon

Cooperating or supporting groups:

School Districts
College of Education, Bradley University, Peoria, Illinois
State Department of Education

Date initiated: June 1, 1966 Estimated terminal date: June 15, 1967

Title: Role Problems of Advanced Graduate Students

Principal investigator and department: Robert W. Heiny (Special Education)

Purpose: A qualitative description and analysis of an academic-professional training program from the perspective of the advanced graduate student.

Subjects: Advanced graduate students in a selected specialty area of education.

Methods: Data collection is based upon participant-observation; the logic of the classical experimental design is followed through both the collection and analytic phases of the study.

Cooperating or supporting groups: University of Illinois College of Education (Fellowship Subvention Funds)

Date initiated: December, 1966 Estimated terminal date: June, 1968

Title: Factors Related to the Proportion of Exceptional Children
Receiving Special Educational Services

Principal investigator and department: Robert Henderson (Special Education)

Purpose: To determine the relative proportion of various types of children receiving special education services by state, and to correlate this proportion with such factors as wealth, occupation, density of population, legislative provisions, etc.

Methods: Enrollment data, by category, for each of the last 10 years, by state, is collected and compared with various demographic, political, social, economic, and educational variables.

Major findings thus far: In a 4 state pilot study with just EMH and TMH, differences were found in regard to mandatory and permissive legislation, reimbursement patterns, and state department of education activities

Date initiated: 1966

Estimated terminal date: 1970

Title: Internships for Leaders in Demonstration and Dissemination

Principal investigators and departments:

Robert A. Henderson, Project Director (Special Education)
Wilber D. Simmons, Program Supervisor (Special Education)

Purpose: Develop leaders for projects in demonstration and dissemination through full-time internships. Interns have responsibility for developing evaluation techniques and for implementing new ideas in local educational agencies.

Subjects: Intern assignments are within local educational agencies allowing the intern an opportunity to become acquainted with the operational details of the local system from school board, top administration, supervisors on through the districts' teachers and pupils.

Methods: Interns will establish models of dissemination processes existing for particular projects within each school system. These models will be developed, evaluated and extended through seminars, conferences with local district personnel, and with the advisory services of selected consultants in the field.

Publication references and/or plans: The reports will be filed with the U. S. Office of Education and local education agencies participating in the program. The project will be developed as one of the Institute for Research on Exceptional Children papers. Other publication plans have not been made at this time.

Cooperating or supporting groups:

- a. Research Training branch of the U. S. Office of Education, Washington D. C.
- b. Champaign Community Unit #4
Evanston Township High School, District #202
Leyden High Schools, Community District #212
Wilmette Common District #39
- c. Special Education Department, and the Institute for Research on Exceptional Children, University of Illinois, Urbana

Date initiated: July, 1967

Estimated terminal date: June, 1968

Title: A Study of Communications Structures Within Large Secondary Schools.

Principal investigator and department: Lloyd E. McCleary (Edl. Adm. & Suprv.)

Purpose: To assess structured approaches to communications employed in the operation of large school organizations.

Subjects: Samples drawn from 1,200 large secondary schools

Methods: Questionnaire - descriptions of types of practices compared to school characteristics and measures of principals rating of effectiveness

Major findings thus far: The greatest needs for improvement centered upon the relationship of the principal and staff. Principals gave highest priority to freeing teachers and department chairmen for group work within the school day and increased informal, direct contacts with teachers.

Among the communications methods best utilized principals tested individual conferences, small group meetings, faculty meetings, personal contacts, daily or weekly bulletins, and intercom systems in that order.

Publication references and/or plans: Survey data of NASSP study to be reported in NASSP Bulletin

Cooperating or supporting groups: NASSP

Date initiated: March, 1966

Title: Structural Features of the Role of Large School Principals

Principal investigators and departments:

Lloyd E. McCleary (Edl. Adm. & Suprv.)

Thomas Sergiovanni (Edl. Adm. & Suprv.)

Purpose: To investigate the problem of "role attrition" in the principalship.

Subjects: Approximately 30 secondary schools

Methods: Critical incident technique; matrix analysis of communication structure; authority relationships.

Major findings thus far: No significant differences in role behavior between principals in large and small schools; no differences between principals in suburban, urban, or "isolated city" communities--role performance is particularistic. Emphasis is upon "managerial" tasks to the exclusion of others. Role determinants seem to be 1) authority assigned, 2) situational demands, 3) rational choice--in that order.

Publication references and/or plans: Article on the first phase submitted to Administrative Science Quarterly

Cooperating or supporting groups: Will seek support as soon as pilot work is completed.

Date initiated: December, 1967 Estimated terminal date: 1972

Title: A Factor Analysis of Characteristics of Public School Systems

Principal investigator and department: William P. McLure (Edl. Adm. & Suprv.)

Purpose: To study common relationships between amounts and methods of financial support and characteristics of educational programs, professional staff, and physical resources.

Subjects: Representative samples of local school districts in six states.

Methods: (1) Field survey for original data
(2) Analysis of variance and step-wise correlation

Publication references and/or plans: A monograph will be published

Cooperating or supporting groups: Sample school districts and State Departments of Education

Date initiated: 1964 Estimated terminal date: August, 1968

Title: Concurrent Work-Education Programs

Principal investigator and department: William J. Schill (Voc. Tec. Ed.)

Purpose: Determine the number of students enrolled, the characteristics of those students, the characteristics of the school and community, and various other aspects of work-education programs.

Subjects: All high schools and junior colleges in the U.S.

Methods: Descriptive study with data being collected from each state's State Department of Education

Publication references and/or plans: Final report in process

Cooperating or supporting groups: U. S. Office of Education project 6-2851

Date initiated: August, 1966 Estimated terminal date: May, 1968

Additional staff: J. William Ullery, Research Associate

Title: A Descriptive Investigation of Supervision of Teachers of the Deaf

Principal investigators and departments:

Philip J. Schmitt (Special Education)
Stephen P. Quigley (Special Education)

Purpose: To survey the extent of classroom supervision in the United States; to study patterns of supervision in various types and sizes of facilities for the deaf; to investigate supervisory practices.

Subjects: 250 supervisors in educational programs for deaf children

Methods: The ~~information~~ from questionnaires was coded on IBM cards from which frequency distributions and correlation data were extracted

Publication references and/or plans: Major results probably will be published as a Special Education Monograph in Education of the Deaf

Additional articles and findings in The American Annals of the Deaf, The Volta Review, Exceptional Children

Cooperating or supporting groups: Vocational Rehabilitation Administration

Date initiated: April, 1965 Estimated terminal date: December, 1967

Additional staff: Sondra Phillips, Specialist in Education; Jill Quadagno, Research Assistant

Title: A Particularistic Approach to Leadership Style

Principal investigators and departments:

Thomas Sergiovanni (Edl. Adm. & Suprv.)
Larry Burden (Edl. Adm. & Suprv.)
Richard H. Metzcus (Edl. Adm. & Suprv.)

Purpose: To investigate the relationship between supervisory style (Leadership Behavior) of principals and need orientations of teachers

Subjects: 270 Elementary and Secondary school teachers

Methods: It was hypothesized that teachers with "hygenic" need orientations would respond favorably to supervisory styles characterized by "persons orientations" and would respond negatively to styles characterized by "systems orientations." The relationship would be reversed for "motivation oriented" teachers. Systems and persons orientations of principals are measured by the Leadership Behavior Description Questionnaire-12. Need orientations are measured by an improved version of the Choice Motivator Scale developed specifically for this research.

Major findings thus far: The initial hypothesized relationships were not sustained. Apparently motivation and hygiene oriented teachers perceive the desirability of both systems and persons orientations. A new theoretical framework was developed which suggests that within the systems and persons framework there exists an optimizing and controlling systems orientation and an optimizing and controlling persons orientation. This led to the formulation of a new hypothesis which suggests that hygiene oriented teachers prefer a controlling systems and persons leadership style and motivation oriented teachers prefer an optimizing systems and persons leadership style. Initial results tend to confirm this relationship. If the relationship is strongly confirmed, the widely adopted Halpin and Winer four quadrant leadership model will need to be revised.

Publication references and/or plans: To be submitted to the professional literature.

Cooperating or supporting groups: College of Education, University of Illinois

Date initiated: February, 1967 Estimated terminal date: April, 1968

Title: Impact of Industrialization on a Rural Region (Educational Aspects)

Principal investigators and departments:

Gene F. Summers (Sociology)
John P. Clark (Sociology)

Purpose: To assess the effects of industrialization on students' vocational and educational aspirations, values, attitudes and self-attitudes. To assess the effects of industrialization on educational organization, curriculum, and policies.

Subjects: Approximately 800 high school students of all grade levels.

Methods: The design is a 5 year longitudinal study which involves annual administration of a survey questionnaire to students and assessments of public documents related to school organization, curriculum and policies. The survey instrument will obtain data regarding students' vocational and educational aspirations, values, attitudes and self-attitudes.

Major findings thus far: Data have been collected for 1966 and analysis is underway.

Publication references and/or plans: It is anticipated that interim research reports will be published and a final report will be prepared for publication.

Cooperating or supporting groups: National Institute of Mental Health

Date initiated: September, 1966 Estimated terminal date: June, 1972

Additional staff: Research assistants:

Lauren Seiler
Richard Hough

Title: Training Program for Consultants in the Development of
Community Resources

Principal investigators and departments:

Merle R. Sumption (Edl. Adm. & Suprv.)
Francis Brown (Illinois State University)
Glenn Williams (Eastern Illinois University)
Jack Peterson (Western Illinois University)
Winston Roesch (Northern Illinois University)

Purpose: The purpose of the project is to offer to appropriate faculty members of the junior colleges, and universities of the State of Illinois a training program to aid them in becoming effective consultants to local citizen groups working on community development projects and to improve the quality of service of those already so engaged. It is proposed to select three or more cooperating communities in Illinois which will serve as laboratory centers in the second year phase of the project. These communities geographically distributed over the state will be ones which recognize the need for the development of their local resources and indicate an interest in doing so. Community leaders with such interest will join with appropriate college consultants selected from those who have attended the first year training sessions and will formulate plans for the development of local resources. These cooperative planning sessions will be held in the late summer or early fall and will be followed by a period of several months of interaction between consultants and community leaders. Then in late spring or early summer evaluative conferences will be held at each center to determine the impact and assess the effectiveness of consultant services.

Subjects: Community leaders, College personnel

Cooperating or supporting groups: State Board of Higher Education - Title I

Date initiated: September, 1967 Estimated terminal date: July, 1968

Comparative Education

Jacquetta Hill Burnett. Study of Educational Problems of Puerto Rican Youth in Inner Chicago

Walter V. Kaulfers. Trends in Secondary Education in the U. S. and Western Europe

Lloyd E. McCleary and Gaston Pol. A Comparative Study of Teacher Attitudes

Alan Peshkin. Socialization and Western Education in a Traditional Society

Alan Peshkin and Ronald Cohen. Values of Modernization

Barbara A. Yates. Education and Social Cleavage in Belgin Africa:
The Early Years

Title: Study of Educational Problems of Puerto Rican Youth in Inner Chicago

Principal investigator and department: Jacquetta Hill Burnett
(Bureau of Educational Research)

Purpose: To study the detailed nature of school problems which arise when the cultural patterns of formal education (from professional educators) and informal education (of household and peer group) are non-complementary and even contradictory to one another.

Subjects: a) American educators in four inner city Chicago schools.
b) Parents of Puerto Rican children attend these four schools; Puerto Rican children themselves, half in junior high school and half in high school.

Methods: Participant observation, interviews, and background questionnaires.

Publication references and/or plans:

Preliminary Report I - planned for September, 1968.
Preliminary Report II - planned for Summer, 1969.
Articles and final monograph - planned for 1968 and 1969.

Cooperating or supporting groups: Bureau of Educational Research

Date initiated: August, 1966

Estimated terminal date: Phase I-December, 1967; Phase II-December, 1968

Additional staff:

Graduate Assistant - Henry Slotnick
Research Assistant - Amadid Ortiz

Title: Trends in Secondary Education in the U. S. and Western Europe

Principal investigator and department: Walter V. Kaulfers (Sec. & Cont. Ed.) and (Hist. & Phil. of Ed.)

Purpose: Updating of courses, syllabi, and textbooks in secondary and international education

Sources: Government documents, reports of field workers, and a survey of current professional literature.

Methods: Documentary; questionnaire - interview

Major findings thus far: There is a close similarity between trends in the U. S. and those embodied in current reforms in England, France, Sweden, and the Soviet Union.

Publication references and/or plans: As a chapter of a book now in preparation with Harl R. Douglass as editor.

Date initiated: September, 1967 Estimated terminal date: June, 1968

Title: A Comparative Study of Teacher Attitudes

Principal investigators and departments:

Lloyd E. McCleary (Edl. Adm. & Suprv.)
Gaston Pol

Purpose: To compare attitudes and values of Bolivian and U. S. teachers and to compare teacher characteristics

Subjects: 500 Bolivian and U. S. teachers

Methods: Use of OCI, Minnesota Teacher Attitude Inventory, and Educational Objectives Inventory--analysis includes correlation matrix of objectives and T-tests of difference between means of samples and subsamples.

Publication references and/or plans: Formal report to AID and Ministry of Education, Bolivia; article to Investigaciones Educativas en America (Pan American Union)

Cooperating or supporting groups:

Agency for International Development
Ministry of Education - Bolivia

Date initiated: July, 1966

Title: Socialization and Western Education in a Traditional Society

Principal investigator and department: Alan Peshkin (Hist. & Phil. of Ed.)

Purpose: To investigate the sources of value formation among children who are the first members of their family to attend western-type schools.

Subjects: An urban male and female and a rural male and female, all primary school children, Muslims, and members of the Kanuri tribe from northeastern Nigeria.

Methods: Observation and interview

Publication references and/or plans: "Use of Trained Observers" Human Organization (to be published early next year)

Cooperating or supporting groups: Northern Nigeria Teacher Education Project - University of Wisconsin

Date initiated: February, 1966 Estimated terminal date: August, 1967

Title: Values of Modernization

Principal investigators and departments:

Alan Peshkin (Hist. & Phil. of Ed.)
Ronald Cohen (Northwestern University)

Purpose: To investigate the nature of and sources of values associated with modernization in northeastern Nigeria

Subjects: 900 school and non-school, urban-rural, male-female persons

Methods: Factor analysis and multivariate analysis of questionnaire and interview data

Publication references and/or plans: "Values of Modernization," Journal of Developing Areas, Nov. 1967.

Cooperating or supporting groups:

University Research Board - University of Illinois
Graduate School Grant - University of Wisconsin

Date initiated: August, 1965 Estimated terminal date: August, 1968

Additional staff: Research Assistants:

Carol Griffet
Sidney Stahl

Title: Education and Social Cleavage in Belgian Africa: The
Early Years

Principal investigator and department: Barbara A. Yates (Hist. & Phil.
of Ed.)

Purpose: To make available new data and analysis

Methods: A historical monograph based on examination of archives in
Belgium

Publication references and/or plans: To be published in 1968

Date initiated: 1964

Estimated terminal date: 1967

Curriculum

- J. Myron Atkin and Stanley P. Wyatt, Jr. Elementary-School Science Project
- Max Beberman. UICSM Project for the Improvement of School Mathematics
- James C. Chalfant and Thomas Shriner. A School Program for Young Mongoloid Children: A Curriculum Development Project
- Richard Colwell. A Programmed Approach to Auditory-Visual Perception
- Richard Colwell. An Approach to Aesthetic Education
- Richard Colwell and Paul Rolland. Development and Trial of a Two-Year String Music Program
- J. Richard Dennis. The Use of PLATO to Control the Teaching of Informal Geometry in the Junior High School
- Dolores Durkin. Two-Year Experimental Language Arts Program for Four- and Five-Year-Olds
- J. A. Easley, Jr. The Uses of Mathematics in Science Teaching
- Gerald W. Faust and Richard C. Anderson. Population Genetics: A Self Instructional Program
- Gerald R. Fuller and Lloyd J. Phipps. Education Regarding Credit for Agricultural Production
- Paul Hemp. Ornamental Horticulture Curriculum Research
- Paul E. Hemp. Vocational Horticulture Specialty Programs for Secondary Students
- J. N. Hook and Paul H. Jacobs. Illinois State-Wide Curriculum Study Center for the Preparation of Secondary School Teachers of English
- Laura Jordan. Field Trial of Unifon Materials With the Mentally Retarded
- Clyde Knapp and Buelah Drom. UISPED (University of Illinois School Physical Education Project)
- Ella C. Leppert and Roland Payette. Sequential Social Science Courses for the Secondary School

- Harold H. Lerch. A Proposed Mathematics Program for Kindergarten
or Entering School Children
- Alan Madsen. A Study of What Illinois Undergraduates Who are Preparing
To Teach English Know About Theoretical Literary Criticism
- M. Eleanor McCoy. History of UICSM Project
- Frederic D. Moyer, Edward Levy, Muriel Hess and Richard Colwell.
Curriculum Development in Aesthetic Education
- Lloyd J. Phipps and Gerald R. Fuller. Rural Education--Disadvantaged
Youth (Project REDY)
- Richard T. Scanlan and Byron Bekiares. Latin Project
- Elizabeth Simpson, Amy Jean Knorr and Bessie Hackett. Development of
Curriculum Guides for the Occupational Aspect of Home
Economics at the Secondary and Post-High School Levels
- Robert B. Smith. The Effect of Group Nursery School Music Training
on Later Achievement and Interest in Music
- Henry J. Sredle and Edward R. Towers. Industrial Arts Curriculum
Project
- Robert M. Tomlinson. The Practical Nursing Study
- Robert W. Walker. Developmental and Evaluation Phase, Pilot Program,
Warsaw Community Unit 316--Enriching the Basic Scholastic
Skills of Slow Learners and Underachievers through Vo-
cational Centered Laboratory Learning
- Ernest D. Washington. The Dual-Kindergarten Program

Title: Elementary-School Science Project

Principal investigators and departments:

J. Myron Atkin (Elementary Education)
Stanley P. Wyatt, Jr. (Astronomy)

Purpose: To develop astronomy books for children (plus accompanying teacher's guides) for use in grades five through nine.

Subjects: About 13,000 children have been involved in the experimental use of the books.

Methods: Books are prepared by astronomers and science teachers during writing conferences. The books are then tried in selected classrooms across the country, and revisions are made based on teacher reactions and analyses of childrens' responses on tests that are administered.

Major findings thus far: The approach is a feasible one for designing materials for classroom use.

Publication references and/or plans:

Book 1, CHARTING THE UNIVERSE, Third Edition, 1963
Book 2, THE UNIVERSE IN MOTION, Second Edition, 1963
Book 3, GRAVITATION, Fourth Edition, 1965
Book 4, THE MESSAGE OF STARLIGHT, Second Edition, 1965
Book 5, THE LIFE STORY OF A STAR, First Edition, 1965
Book 6, GALAXIES AND THE UNIVERSE, First Edition, 1965
Others to be published by Harper and Row, 1968

Cooperating or supporting groups: National Science Foundation

Date initiated: September, 1960 Estimated terminal date: September, 1968

Additional Staff:

Henry Albers, Astronomer
Karlis Kaufmanis, Astronomer
Benjamin F. Peery, Astronomer

Science Education Specialists:

Roy A. Gallant
Alvin Hertzberg
Bernard E. Nurry
Fred R. Wilkin

Peter B. Shoresman, Associate Professor of Science Education
JoAnn M. Stecher, Research Associate
Helen W. Peirce, Editor
Robert A. von Neumann, Illustrator
Henry Slotnick, Research Assistant
Kurt Froehlich, Research Assistant

Title: UICSM Project for the Improvement of School Mathematics

Principal investigator and department: Max Beberman (Sec. & Cont. Ed.)

Purpose: To develop new curricula in secondary school mathematics

Methods: Develop materials here, test and revise on basis of trials throughout the country. Train teachers in institutes.

Among the specific foci of the staff are the following:
1) the development of classroom text materials plus teachers' commentary for a vector approach to Euclidean geometry (Vaughan and Szabo); 2) the development of materials aimed at culturally disadvantaged youngsters (Braunfeld and Zwoyer); and 3) the development of an inservice course for inner city teachers of mathematics in conjunction with the UICSM program (Hoffman).

Major findings thus far: 7th and 8th grade courses developed for under-achievers. Experimental course in vector geometry for 10th and 11th graders.

Publication references and/or plans: Publishers chosen for commercial-versions in 1969.

Cooperating or supporting groups: Schools in about a dozen cities

Date initiated: June, 1962 Estimated terminal date: August, 1969

Additional staff:	Aizawa, Aileen	Phillips, Josephine
	Braunfeld, Peter	Prusak, Maximilian
	Brown, O. Robert	Rasmussen, Peter
	Gelder, Harvey	Sanders, Walter
	Golden, William	Simmons, Gertrude
	Hettinger, Michael	Steinberg, Esther
	Hoffman, Joseph	Szabo, Steven
	Lowe, Terry	Tremblay, Clifford
	McCoy, Eleanor	Vaughan, Herbert
	Zwoyer, Russell	

Title: A School Program for Young Mongoloid Children: A Curriculum Development Project

Principal investigators and departments:

James C. Chalfant (Institute for Research on Exceptional Children)
Thomas Shriner (Children's Research Center and Department of Speech)

Purpose: To develop an integrated training program for children with Down's Syndrome, which is based on their observed assets and deficits.

Subjects: Twenty children with Down's Syndrome (Mongolism), selected from the state residential institutions, ten of whom will be admitted to one ward at the Adler Zone center. The other ten children will serve as control subjects. The chronological ages of the subjects will be between four and six years.

Methods: The departments of special education, speech correction, recreation, and psychology will develop a comprehensive habit training and school program for young Mongoloid children, using a "Do and Say" technique, while following the principles of operant learning. The progress of children in the experimental and control groups will be evaluated and compared at the end of the year. The curriculum and methods developed during this first year of the project will be applied to a new experimental group during the second year of the project.

Cooperating or supporting groups: The project is jointly sponsored by the State of Illinois Department of Mental Health, the University of Illinois, and the U. S. Office of Education.

Date initiated: September, 1967 Estimated terminal date: August, 1969

Additional staff:

Coordinator (Res. Assoc.)	Ronald G. Silikovitz
Teacher	Linda A. Meyer
Research Associate	Girvin Kirk
Research Associate	Anthony Linford
Research Assistants	Jane Nemec
	Beverly Dunn
	Claudine Jeanrenaud

Title: A Programmed Approach to Auditory-Visual Perception
Principal investigator and department: Richard Colwell (Sec. & Cont. Ed.)
Purpose: A program for gifted high school students
Cooperating or supporting groups: Program for the Gifted, State
Department of Education
Date initiated: 1966 Estimated terminal date: 1968
Additional staff: James Fulkerson, Research Assistant

Title: An Approach to Aesthetic Education
Principal investigator and department: Richard Colwell (Sec. & Cont. Ed.)
Purpose: Develop the exemplar approach to aesthetic education
Cooperating or supporting groups: U. S. Office of Education
Date initiated: 1966 Estimated terminal date: 1969
Additional staff: Research Assistants:
Reynold Krueger Muriel Hesse
Douglas D. Bianco Elaine Montgomery
Carol Schwartz Marcia Swengel
Bob Cardinal Ned Levy

Title: Development and Trial of a Two-Year String Music Program
Principal investigators and departments:
Richard Colwell (Sec. & Cont. Ed.)
Paul Rolland (Music)
Purpose: Develop films, records, and teaching materials for strings
Cooperating or supporting groups: U. S. Office of Education
Date initiated: 1965 Estimated terminal date: 1968
Additional staff: Research Assistants:
Paul Rolland Lynn Allen
Ulrich Donneman Bob Ashby
Deonne Orvis Jim Peters
Bob Skidmore Ernesto Valencia

Title: The Use of PLATO to Control the Teaching of Informal Geometry
in the Junior High School

Principal investigator and department: J. Richard Dennis (Research
Associate, Educational Research Laboratory)

Purpose: To provide the student with a means of constructing answers in
the form of geometric figures on the TV screen without sacrifice
of the positive features of Computer Assisted Instruction (CAI)

Subjects: Junior high school students

Major findings thus far: The computer can be programmed to control non-
verbal responses such as a constructed polygon, and still give
immediate analysis of the correctness of such responses. The
effectiveness of such experiences has yet to be measured with
students.

Date initiated: May, 1967

Estimated terminal date: June, 1968

Title: Two-Year Experimental Language Arts Program for Four- and Five-
Year-Olds

Principal investigator and department: Dolores Durkin (Elementary Education)

Purpose: To test the validity, for school use, of findings from prior
research with children who learned to read at home before
entering school

Subjects: Thirty-seven four-year-old children

Publication references and/or plans: An extensive and detailed report,
in book form, of the two year project will be published

Cooperating or supporting groups: Carnegie Corporation of New York

Date initiated: September, 1967 Estimated terminal date: June, 1969

Title: The Uses of Mathematics in Science Teaching

Principal investigator and department: J. A. Easley, Jr. (Sec. & Cont. Ed)

Purpose: To explore the widening gap between mathematics used in science instruction and that taught in mathematics courses.

Primary concern will be with the secondary school level and will be limited to mathematics below calculus.

The first problem to be considered is the form in which advice on new uses and forms of mathematics in science courses can best be communicated to science teachers and students. A handbook for teachers on the uses of mathematics in science teaching is among the possibilities, as well as a series of "problem books" for science students, one for each subject area.

Cooperating or supporting groups: National Science Foundation

Date initiated: August, 1967 Estimated terminal date: October, 1968

Title: Population Genetics: A Self Instructional Program

Principal investigators and departments:

Gerald W. Faust (Edl. Psych.)
Richard C. Anderson (Edl. Psych)

Purpose: To develop, test, and evaluate a prototype self instructional program (in booklet form). This project will hopefully demonstrate the place of such programs in present day curricula. It is further hoped that the project will cause major curriculum projects (like the sponsoring agency, BSCS) to reconsider and reevaluate their stand on the development of such materials in their projects.

Subjects: Over 1000 high school students in Chicago, Milwaukee and Urbana University High

Methods: A two booklet self instructional lesson on population genetics was developed (about 6 hours of instruction). This program was then given to 1/2 of the High School Biology classes at Chicago's Oak Park River Forest High School and at Nicolette High School in Milwaukee. The remaining classes were taught by their instructors using any method. The only requirement was that non-program classes not receive the program. Classes were assigned at random to experimental groups with the constraint that teachers with 2 or more classes teach one-half of them without the program. Ss were given tests both before and after the unit on population genetics. Our major interests were in finding out: (1) Is the program a useful adjunct to regular instructions; (2) What kinds of use do teachers make of such a program; (3) How do teachers and students react to the program; and (4) Does the addition of the program result in improved performance on the posttest.

Major findings thus far:

- A. Students and teachers enjoyed the programs (in general)
- B. Student posttest performance was superior when they had received the program.

Publication references and/or plans: The program itself and a complete report of the program will be published when the data has been completely analysed and the program has been revised in line with field test data.

Cooperating or supporting groups:

Biological Science Curriculum Study: Boulder, Colorado

Date initiated: Fall, 1966 Estimated terminal date: Spring, 1968

Additional staff: Research Assistants:

John T. Guthrie
Veronica Drantz
Marianne Roderick

Title: Education Regarding Credit for Agricultural Production

Principal investigators and departments:

Gerald R. Fuller (Voc. Tec. Ed.)
Lloyd J. Phipps (Voc. Tec. Ed.)

Purpose: Identify the present focus and thrust of educational programs in institutions furnishing financial credit for agricultural production and in public schools, determine the effectiveness of these programs, identify the areas in which additional thrust needs to be developed in existing programs, identify new educational programs that are needed, develop the materials and methods required to generate the necessary thrust, try out the new methods and materials and evaluate the results.

Subjects: The population includes: (1) managers, employees, and members of the 45 Production Credit Associations in Illinois, Arkansas, and Missouri who constitute the field staff of the Federal Intermediate Credit Bank of St. Louis; and (2) the agricultural occupations instructors, high school students, and adult class members in 435 departments of agricultural occupations in Illinois public high schools.

Methods: Survey procedures were used to identify the characteristics of existing educational programs. Statistical procedures were used to help identify significant differences between more effective and less effective educational programs in existence. Experimental teaching situations will be used to evaluate the effectiveness of the educational materials and methods developed as part of this research project.

Major findings thus far: Increased educational thrust is needed in several critical areas of instruction at both the high school and adult levels. There appears to be a dearth of educational resource material designed to help educators plan and conduct effective, systematic instruction regarding the use of financial credit in production agriculture.

Publication references and/or plans:

- a. Report No. 1, Survey of PCA Managers
- b. Report No. 2, Survey of Teachers
- c. Partial list of references and teaching aids used by Illinois teachers

Additional progress reports will be published. Teaching materials and subject-matter materials will be published at the conclusion of the project.

Cooperating or supporting groups:

Federal Intermediate Credit Bank of St. Louis,
Sixth Farm Credit District and
The Illinois Production Credit Associations

Date initiated: February 1, 1965 Estimated terminal date: June 30, 1968

Additional staff:

Byron Gregg, Research Assistant
George Young, Research Assistant
Earl Russell, Research Assistant
Ron Wesbecher, Research Assistant

Consultants: Paul E. Hemp, Professor, Vocational and Technical
Education
J. Robert Warmbrod, Associate Professor, Vocational
and Technical Education

Research Advisory Committee:

T. R. McGuire, Vice President, Federal Intermediate
Credit Bank of St. Louis
R. E. Parks, Manager, Champaign Production Credit Association
John Noland, Manager, Decatur Production Credit Association
Owen R. Kirby, Manager, Fox Valley Production Credit
Association
Bill Hughes, Manager, Illini Production Credit Association
John Matthews, Chairman, Vocational Agriculture Service,
College of Agriculture
John Herbst, Vocational Agriculture Service and Department
of Agricultural Economics, College of Agriculture

Title: Ornamental Horticulture Curriculum Research

Principal investigator and department: Paul Hemp (Voc. Tec. Ed.)

Purpose: To develop and field test new curriculum materials for vocational ornamental horticulture programs.

Subjects: Teachers and their students in 54 high schools and junior colleges in Michigan, Kansas, Missouri, Kentucky, and Illinois

Methods: Fifty laboratory exercises and seven source units have been developed, field tested, and revised.

Publication references and/or plans: (1) ERIC, Vocational Education Center at Ohio State University. (2) Curriculum materials will be published by Interstate Printing Co.

Cooperating or supporting groups: U. S. Office of Education, 4 C project

Date initiated: May, 1966 Estimated terminal date: October, 1967

Additional staff: Research Assistants:

John F. Bobbitt
Lloyd Hughes
Alfred Mannebach
Nathaniel Sheppard

Title: Vocational Horticulture Specialty Programs for Secondary Students

Principal investigator and department: Paul E. Hemp (Voc. Tec. Ed.)

Purpose: To develop and field test a new curriculum in landscape and grounds maintenance

Subjects: Teachers and students in two pilot schools

Methods: A pilot program has been developed for field testing at Naperville and Joliet High Schools. Monthly visits to these schools will be made to help the teachers conduct the instructional program and to evaluate the results.

Publication references and/or plans: A preliminary report will be prepared during the summer of 1968.

Cooperating or supporting groups: Research Coordinating Unit;
Board of Vocational Education and Rehabilitation,
Springfield, Illinois

Date initiated: July 1, 1967 Estimated terminal date: June 30, 1968

Additional staff: Research Assistants:

William Johnson
Tom Nicholson

Title: Illinois State-Wide Curriculum Study Center for the
Preparation of Secondary School Teachers of English

Principal investigators and departments:

J. N. Hook, Director (English)
Paul H. Jacobs, Associate Director (English)

Purpose: To improve college-level curricula in preparation of
teachers of English.

Subjects: English majors in twenty Illinois colleges and universities

Methods: 1. Work on curriculum planning in each of twenty institutions
2. One or more special research projects in each institution

Major findings thus far: 1. Prepared list of qualifications
2. Completed forms for measuring reactions
to college preparation
3. Complete study of the role of oral
interpretation
4. Completed two studies of critical
thinking in methods courses

Publication references and/or plans:

1. Series of interim reports
2. Official report to U. S. Office of Education
3. Book (tentative): What Every English Teacher Should Know

Cooperating or supporting groups:

1. U. S. Office of Education
2. Nineteen other Illinois colleges and universities

Date initiated: August, 1964 Estimated terminal date: July, 1969

Additional staff: Raymond D. Crisp, Research Associate

Title: Field Trial of Unifon Materials With the Mentally Retarded

Principal investigator and department: Laura Jordan (Special Education)

Purpose: To evaluate with what type of retarded children this material will be most effective.

Subjects: 2 primary EMH classes

Methods: The progress of individual children will be correlated with test indications of their specific learning difficulties.

Cooperating or supporting groups: Instructional Materials Centers for Handicapped Children

Date initiated: Fall, 1967

Estimated terminal date: June, 1968

Title: UISPEP (University of Illinois School Physical Education Project)

Principal investigators and departments:

Clyde Knapp (Sec. & Cont. Ed.)

Buelah Drom (Department of Physical Education for Women)

Purpose: To develop a physical education curriculum for secondary schools

Subjects: University High School physical education classes

Methods: Plan, implement, evaluate, and revise curriculum using University High School Classes for 1967-1969. Later, other secondary schools will be included and teacher institutes will be held.

Major findings thus far: Tentative indications are that individual, independent, approaches to "living in health units" can be combined with games, sports, and gymnastics.

Publication references and/or plans: Additional written and audio-visual materials are in preparation stage

Cooperating or supporting groups: College of Education and Provost Office

Date initiated: Pilot program University High School, September, 1967

Estimated terminal date: June, 1976

Additional staff: Research Assistants:

Diane Wakat - University High School (Girls)
Ronald Bole - University High School (Boys)

Title: Sequential Social Science Courses for the Secondary Schools

Principal investigators and departments:

Ella C. Leppert, Director (Sec. & Cont. Ed.)
Roland Payette, Associate Director (Education)

Purpose: Development of three sequential courses in the social studies (grades 8, 9, 10). These course materials represent a systematic attempt to integrate basic knowledge from economics, political science, anthropology, sociology, geography, history, area studies, and educational psychology.

Subjects: 1606 students located in University High School and seven public school systems in Illinois. Generally, these are gifted students in the upper 10% of academic aptitude.

Methods: Identification of concepts, generalizations and skills of social analysis by the project staff in cooperation with academic specialists; preparation of the new course materials and evaluation instruments which are then trial taught at University High School; revision of the materials and preparation of a Teacher's Manual with try-out in a small number of public schools whose teachers have benefit of orientation to the new materials in summer institutes, conferences on campus each semester and some consultant help by project staff. Selected random samples will be drawn from the student population and these various population samples will be observed in the classroom; they will be given objective tests and questionnaires.

Major findings thus far: Growth in ability to apply concepts and generalizations to social phenomena has been observed (on the basis of objective test scores) as the students progress from grade 8 through grade 10. For the restricted population studied there is a moderate correlation (from .40 to .50) between academic aptitude and course achievement.

Publication references and/or plans: Publishers will be invited to examine the new materials for Courses I, II, III in late 1967. These include Course I - The Family in Society; Economics: Choice Making; Man's Political Institutions. Course II - Man's Physical Environment; Cultural Development; Classical Civilizations; European Civilizations. Course III - Sub-Saharan Africa; Soviet Union; South Asia; East Asia.

Cooperating or supporting groups: USOE, U of I (College Education; LASC; College Agriculture, College Commerce and Business Administration; College Art and Architecture, Music, Center Instructional Research and Curriculum Evaluation, Social Science Education Consortium, Illinois State Program for the Gifted.

Date initiated: July, 1963 Estimated terminal date: February, 1967

Additional staff:

Evans Mank, Assistant in Education
Ellen Johnson, Assistant in Education

Title: A Proposed Mathematics Program for Kindergarten or Entering School Children

Principal investigator and department: Harold H. Lerch (Elementary Education)

Purpose: To develop an early school mathematics program, series of mathematics experiences, at the level of concrete operations and emphasizing language development appropriate for the first year of school attendance.

Subjects: 10 kindergartens in Danville, Illinois; their teachers and pupils. Information also will be gathered from several kindergartens in Urbana which are using the materials.

Methods: The project is now in a stage of revising and expanding the mathematics activities. No experimental comparisons will be made, with possible exception of ascertaining whether some types of children do not do as well as others.

Major findings thus far: In the experimental study completed, but not as yet reported, kindergarten children working in this experimental program: (1) gained more in matching skills than children in a work-book type program; (2) gained more in number knowledge and skills than children in a work-book type program; (3) gained more in copying or motor control skills than children in the work-book type program. The last finding is most interesting because the experimental program involved a minimum of drawing and writing. All of these findings were significant at the .05 level.

Publication references and/or plans: It is intended to report the results of the experimental study in a professional journal. The program will be published as a teachers guide for kindergarten mathematics program.

Cooperating or supporting groups: Carbondale, Illinois city schools; Danville, Illinois P-T-A sponsored kindergartens; Urbana, Illinois-school system and interested teachers.

The project is not funded.

Date initiated: September, 1965 Estimated terminal date: September, 1968

Title: A Study of What Illinois Undergraduates Who Are Preparing To Teach English Know About Theoretical Literary Criticism

Principal investigator and department: Alan Madsen (Sec. & Cont. Ed.)

Purpose: To make recommendations for teacher-preparation programs in English

Subjects: Approximately 1,000 undergraduates in 20 Illinois colleges

Methods: Build a test in literary criticism. Compare the responses of those undergraduates who have taken courses in literary criticism with responses of those undergraduates who have had no courses in literary criticism.

Publication references and/or plans: Publication in appropriate professional journal

Cooperating or supporting groups: Illinois State-Wide Curriculum Study Center for the Preparation of Secondary School Teachers of English (ISCPET)

Date initiated: Spring, 1967 Estimated terminal date: Fall, 1968

Title: History of UICSM Project

Principal investigator and department: M. Eleanor McCoy (Curr. Lab. and Sec. & Cont. Ed.)

Purpose: To provide a public record of the first 10 years (1952-1962) of the work of UICSM Project - forerunner of modern curriculum development projects

Methods: Usual methods of historical research - obtaining information from original documents in Project files, personal files, and interviews with individuals associated with the project.

Publication references and/or plans: Will be published by UICSM Project

Cooperating or supporting groups: National Science Foundation

Date initiated: September, 1966 Estimated terminal date: August, 1968

Title: Curriculum Development in Aesthetic Education

Principal investigators and departments:

Frederic D. Moyer (Architecture)
Edward Levy (Education)
Muriel Hess (University High School)
Richard Colwell (Sec. & Cont. Ed.)

Purpose: To develop curriculum methods and materials for a combined arts course in artistic appreciation.

Subjects: Staff representation, at this time, includes the fields of painting, sculpture, music, architecture and literature.

Methods: Individual research work is being conducted by the project staff into materials and methods most suitable for their subject areas. Collaboration at this early phase does take place. Trial lessons are undertaken within the facilities of the Curriculum Laboratory for student feedback and our observation of the effectiveness of the developed materials.

Major findings thus far: The early stage of progress precludes evaluation of findings in terms of their importance.

Publication references and/or plans: A teachers guide to accompany lesson materials will be developed

Cooperating or supporting groups: Curriculum Laboratory

Title: Rural Education--Disadvantaged Youth (Project REDY)

Principal investigators and departments:

Lloyd J. Phipps (Voc. Tec. Ed.)
Gerald R. Fuller (Voc. Tec. Ed.)

Purpose: To identify a "model" vocationally oriented educational program which will develop human resources of youth in disadvantaged families in depressed rural areas.

Subjects: (1) A randomly selected sample of 251 families containing 1,117 persons representing a cross-section of the population living in a depressed rural area in Illinois. (2) A randomly selected sample of 61 families containing 388 persons representing the severely disadvantaged families living in the same depressed rural area. (3) An experimental group and two control groups comprising 35 selected severely disadvantaged families living in the same depressed area.

Methods: Survey techniques involving in-home interviews were used to collect information regarding the characteristics and attitudes of the cross-section and severely disadvantaged families. Statistical techniques are being used to further identify characteristics of the subjects. An on-site "model" educational program is being conducted for the experimental group. The "model" program will be tried out and evaluated in ten additional rural depressed areas in Illinois.

Major findings thus far: Preliminary findings indicate there are important differences between the cross-section and severely depressed samples of families in the rural depressed area regarding the types of customary leisure-time activities in which families participate, the degree of enjoyment families obtain from participation in these leisure-time activities, the social classes with which families identify, the general adjustment of these families to life, the morale of these families, the degree to which the wishes and desires of these families are being met and the degree of consensus among families regarding opinions about their community. Additional findings associated with occupational choice, family make-up, migration, educational achievement and other characteristics of these families will be available later. A preliminary evaluation of the "model" educational program will be completed in 1968.

Publication references and/or plans: It is anticipated that progress reports describing the characteristics of the cross-section families and severely depressed families in the rural depressed area will be published during 1967-68. Further progress reports regarding the "model" educational program will be published in 1968-69. Final reports will be published in 1970.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: June 1, 1965 Estimated terminal date: May 30, 1970

Additional staff: Research Assistants

H. E. Eichelberger
Robert Cottingham
Vincente Quiton
Jasper Lee
John Roth
Roger Landon
S. Douglas Patterson

On-Site Coordinator

Jack Shetler

Computer Programmer

Kikumi Tutsuoka

Title: Latin Project

Principal investigators and departments:

Richard T. Scanlan (Classics)
Byron Bekiares (Asst. Special Education)

Purpose: To develop a six year Latin curriculum for secondary schools.

Cooperating or supporting groups: Curriculum laboratory

Date initiated: September, 1967

Title: Development of Curriculum Guides for the Occupational Aspect of Home Economics at the Secondary and Post-High School Levels

Principal investigators and departments:

Elizabeth Simpson (Voc.Tec. Ed.)
Amy Jean Knorr (Voc. Tec. Ed.)
Bessie Hackett (Voc. Tec. Ed.)

Purpose: To develop curriculum guides to implement development of a new integrated model for home economics education at the secondary level.

Publication references and/or plans: The Illinois Teacher of Home Economics will be utilized as a means of disseminating the results of the curriculum project.

Cooperating or supporting groups:

Research Coordinating Unit
Springfield, Illinois

Date initiated: September 15, 1967 Estimated terminal date: September 15, 1968

Additional staff: Graduate Assistants:

Norma Bobbitt
Winifred Davis
May Huang
Alice Kauffman

Title: The Effect of Group Nursery School Music Training on Later Achievement and Interest in Music

Principal investigator and department: Robert B. Smith (School of Music and Home Economics)

Purpose: To assess the effects of nursery school music training on Ss' later achievement and interest in music. A second purpose is to compare their performances and interest with a selected comparison group.

Subjects: Fifteen sixth grade E Ss and 13 fifth grade E Ss who have completed at least two semesters of group music training at the Child Development Laboratory. Approximately 60 C Ss will also be tested at these grade levels.

Methods: The research design features a longitudinal study of E and C Ss. Data is collected in three ways:
__individual vocal tests administered after three days of group training
__achievement test (proposed) -EMAT to be administered at sixth grade level
__interest in music - parent interviews describing S's involvement in private music study and extracurricular music organizations

Major findings thus far: (1960 - 1967)

Vocal skills

__kindergarten - significant differences favoring E Ss on three of four subtests

__third grade - significant differences favoring E Ss in total accuracy

__fifth grade (incomplete) - significant differences favoring E Ss on three of four subtests

achievement test (sample only) -comparison of EMAT scores shows sixth grade E Ss scoring an average of 30 points higher than C Ss

interest in music - parent interviews show E Ss to be 20 to 30 percent more involved in private study or music organizations

Publication references and/or plans: Report on kindergarten results will be submitted to a journal in Spring, 1968

Date initiated: September, 1958

Estimated terminal date: May, 1969 for fifth and sixth grade testing (project will be continued at secondary school level)

Additional staff: Charmion Simons, Research Assistant

Title: Industrial Arts Curriculum Project

Principal investigators and departments:

Henry J. Sredle (Voc. Tec. Ed.)
Edward R. Towers (Ohio State University)

Purpose: To develop an industrial arts curriculum for the junior high school which will realistically close the gap existing between industry and its interpretation in the schools.

Subjects: Junior high school students in six geographical areas of the U. S.

Methods: 1965-67 Development of rationale, programs, instructional materials, teacher preparation
1967-68 First year trial of curriculum
Summer 1968 Revision of materials
1968-71 Two subsequent trials and revisions of curriculum

Cooperating or supporting groups:

The Ohio State University (headquarters for project)
Trenton State College - Field test center
University of Miami - Field test center
Cincinnati Public Schools - Field test center

Date initiated: 1965

Estimated terminal date: 1971

Title: The Practical Nursing Study

Principal investigator and department: Robert M. Tomlinson (Voc. Tec. Ed.)

Purpose: The long-range goal of the study is the improvement of nursing services through the improvement of the selection process, educational programs (including curriculum and the instructional staff) and better utilization of prepared practical nursing personnel.

Subjects: 1800 Licensed Practical Nurses in Illinois and Iowa
700 Employed LPNs in Illinois and Iowa
150 Employed RNs in Illinois and Iowa
2000 Applicants who did not enroll in 45 PN schools in
Illinois and Iowa
1400 Students who are enrolled in 45 schools in Illinois
and Iowa

Methods: This study is concerned with determining the nature of the population of licensed practical nurses, their employment patterns and preferences, the recruitment and selection of students of practical nursing and the programs through which they are prepared, as well as the relationships among identifiable characteristics of individuals and their employment patterns as practitioners of practical nursing. It will include individuals, programs, and employment settings in the states of Illinois and Iowa.

Publication references and/or plans: Three preliminary reports and final plus articles first to be printed in July, 1967.

Cooperating or supporting groups: U.S. Office of Education, Division of Adult and Vocational Research

Date initiated: June 1, 1965 Estimated terminal date: August 3, 1968

Additional Staff:

Research Associates:

Clarence L. Ash
Larry J. Bailey
John Huck
Lois A. Jarnagin
David L. Joyce
Lois M. Langdon
Glen Martin
Warren N. Suzuki
Thomas L. Switzer
James S. Underwood
Carole B. Hoadley
Ronald F. Czaja

Associate Research Investigator:

Elizabeth E. Kerr

Research Coordinator:

Dale F. Petersen

Title: Developmental and Evaluation Phase, Pilot Program,
Warsaw Community Unit 316--Enriching the Basic Scholastic
Skills of Slow Learners and Underachievers through Vocational Centered Laboratory Learning

Principal investigator and department: Robert W. Walker (Voc. Tec. Ed.)

Purpose: To assist the Warsaw Community Unit No. 316 High School to develop, implement, and evaluate an experimental program specifically designed to meet the needs of slow learners, underachievers and potential school dropouts, and students who have dropped out of the normal educational stream because they lack competencies in certain basic skills.

Methods: To serve as consultant to the Warsaw school for the development of the agriculture-oriented vocational facility into an instructional and learning environment.

To provide special instructional analyst services to the school to insure that the program is worthwhile and is organized so that it may be effectively evaluated.

To develop and adapt teaching materials and teaching plans for use by the teachers in the program at Warsaw.

To determine objective results of the experimental program.

To determine subjective results of the experimental program.

To prepare reports of results of the experimental program emphasizing supervised work experience procedures and curriculum materials that may be recommended to other schools.

Cooperating or supporting groups: Board of Vocational Education and Rehabilitation.

Date initiated: July 1, 1967 Estimated terminal date: August 31, 1969

Additional staff: Alvin T. Lamar Graduate Assistant
Carl F. Awe Graduate Assistant

Title: The Dual-Kindergarten Program

Principal investigator and department: Ernest D. Washington
(Special Education)

Purpose: To compare two groups of disadvantaged kindergarten children. The control group attends public kindergarten only, the experimental group attends both public and an academic kindergarten.

Methods: Both experimental and control groups have been pre-tested on the Stanford-Binet, and at the end of nine months of school will again receive the test. Both groups will be followed in Champaign schools for at least two years to see if a difference in academic achievement results from an intensive kindergarten year.

Major findings thus far: Studies of the previous two year program, starting with children at age 4, have shown a mean I.Q. gain of 25 points and reading and arithmetic scores of the second grade level.

Publication references and/or plans: Results included in Bereiter-Engelman, Teaching Disadvantaged Children in the Pre-School

Cooperating or supporting groups:

U. S. Office of Education
Carnegie Corporation

Date initiated: September, 1966 Estimated terminal date: June, 1967

Educational Research As An Activity

James C. Chalfant. Minimal Brain Dysfunction in Children: A Review
of the Research

Richard Colwell. A Critique of Research Studies in Music Education

William F. Marquardt. Review of Research on Literary and Adult
Education in Latin America

Walter J. Moore. Elementary English: Annotated Bibliography, 1924-1967

Title: Minimal Brain Dysfunction in Children: A Review of the Research

Principal investigator and department: James C. Chalfant (Special Education)

Purpose: To review the research related to minimal brain dysfunction in children, report the status of knowledge, identify the gaps, and point out directions for future research in this area.

Cooperating or supporting groups: National Institute of Health

Date initiated: October, 1966 Estimated terminal date: June, 1968

Title: A Critique of Research Studies in Music Education

Principal investigator and department: Richard Colwell (Sec. & Cont. Ed.)

Purpose: Critique and publish pertinent research

Cooperating or supporting groups: U. S. Office of Education

Date initiated: 1965 Estimated terminal date: 1969

Additional staff: Richard Kusk, Research Assistant

Title: Review of Research on Literary and Adult Education in Latin America

Principal investigator and department: William F. Marquardt (Sec. & Cont. Ed.)

Purpose: To appear as a contribution to the "Education Issue" of the Latin American Research Review edited by Professor Lloyd McCleary

Methods: To bring together information on research conducted by private organizations and government agencies, on the area in question, classify and evaluate it in terms of proclaimed needs, and to suggest lacunae.

Estimated terminal date: November, 1967

Title: Elementary English: Annotated Bibliography, 1924-1967

Principal investigator and department: Walter J. Moore (Elementary Education)

Purpose: To provide a complete annotated bibliography of a periodical which has never been indexed nor annotated, from the date of its inception in March, 1924 through the end of 1967.

Methods: This is a library research--a brief account of what each article is about, categorization, cross-referencing, and the like in Elementary English and its predecessor Elementary English Review.

Major findings thus far: None to report now, except that the research is in its final phases and will be completed early in 1968, hopefully by the beginning of the spring semester.

Publication references and/or plans: To be printed as a book, hard-back and paperback, by the National Council of Teachers of English by November, 1968.

Cooperating or supporting groups: Cooperating, but not supporting, is the National Council of Teachers of English.

Date initiated: February, 1966

Estimated terminal date: March, 1968, at the latest, probably two months earlier.

Goals and Functions of Education

Charles Daigh. The Role of College and University Teachers of German
(Tentative Title)

Stephen P. Quigley. Follow-up Study of Students Who Terminated in
Programs for the Deaf in Illinois, 1957-1967

Stephen P. Quigley. Deaf Students in Colleges and Universities in
the United States

Warren M. Steinman. The Development of Behavior Controlled by
Deferred Reinforcement

Title: The Role of College and University Teachers of German
(Tentative Title)

Principal investigator and department: Charles Daigh (Sec. & Cont.
Ed.)

Purpose: To determine the orientation of German teachers toward
their subject field.

Subjects: A sampling of German teachers at colleges and universities
throughout the United States.

Methods: The design is based on a questionnaire. Many complaints
are received about the quality of preparation of language students coming from the high schools. The study will attempt to determine whether the attitudes of college language people are prejudiced toward the teaching of literature so that teacher training in the language is relegated to a position of secondary or no importance. If so, this indicates the need for a change of attitude on the part of college language teachers if they are to prepare better high school teachers.

Cooperating or supporting groups: Survey Research Laboratory,
University of Illinois

Date initiated: Spring, 1967 Estimated terminal date: December, 1968

Title: Follow-up Study of Students Who Terminated in Programs
for the Deaf in Illinois, 1957-1967

Principal investigator and department: Stephen P. Quigley
(Special Education)

Purpose: To determine the present occupational, social and
marital status of students who graduated or terminated
from programs for the deaf in the state of Illinois during
the period 1957-1967.

Subjects: The target population will consist of as many graduates
or terminatees of the programs as can be located by
a variety of techniques.

Methods: The design has two major purposes. (1) To describe the present occupational, social, and marital status of persons who graduated or terminated from programs for the deaf in Illinois during 1957-1967. (2) To relate present status to past educational environment and programs and to a number of other relevant variables.

Date initiated: September, 1967 Estimated terminal date: September, 1969

Additional staff:

Jill Quadagno, Assistant Specialist in Education
Carol DeVries, Research Assistant

Title: Deaf Students in Colleges and Universities in the United States

Principal investigator and department: Stephen P. Quigley
(Special Education)

Purpose: To determine the characteristics of deaf students who have attended colleges and universities populated primarily by students with normal hearing.

Subjects: Approximately 650 subjects were located by a variety of means who met the criteria of (1) severe hearing impairment, and (2) attendance at a regular and accredited institution of higher education.

Methods: This is a survey project which is designed primarily to (1) describe the characteristics of students who have attended regular and accredited colleges and universities, and (2) to make comparisons among (a) successful graduates; (b) persons still attending college; (c) persons who terminated prior to achieving degree status.

Major findings thus far: The project has been completed and the publication describes the characteristics of deaf students in accredited institutions of higher education, presents information on their degrees of successes in college and post-college life, and offers recommendations for increasing the chances of success for deaf persons attempting to gain higher education in colleges and universities.

Publication references and/or plans: Papers have been presented on the project at conventions and have appeared in the proceedings of those conventions. The final report is now in press as a book under the auspices of the Alexander Graham Bell Association for the Deaf, Inc. and will appear in December, 1967.

Cooperating or supporting groups: The study is part of a program of Research on the Behavioral Aspects of Deafness supported by the Vocational Rehabilitation Administration.

Date initiated: September, 1963 Estimated terminal date: September, 1967

Additional staff:

Dr. William C. Jenne, Research Associate
Dr. Herbert Hamilton, Research Associate
Mrs. Sondra Phillips, Specialist in Education
Jill Quadagno, Research Assistant

Title: The Development of Behavior Controlled by Deferred Reinforcement

Principal investigator and department: Warren M. Steinman
(Special Education)

Purpose: To develop the tendency to work for long-term goals in deference to immediate gratifications.

Subjects: Normal pre-school children to begin with and then children having emotional disturbances of increasing severity as techniques evolve.

Methods: An operant conditioning approach will be used in which the child will have two responses concurrently available. Reinforcement densities and magnitudes for each response will be adjusted until the child learns to perform a more effortful response, having a greater delay in reinforcement, but also having greater magnitudes of reinforcement. Once the response for delayed reinforcement has gained greater strength than the response leading to more immediate but lower magnitudes of reinforcement, further scheduling will be introduced in order to maintain the delayed reinforcement choice while the relative magnitude of reinforcement is decreased.

Additional staff: Ian Wickram, Research Assistant

Guidance and Counseling/School Psychology

Henry Kaczowski. Teacher Perceptions of Elementary Guidance

Thomas J. Long. The Effect Pre-Trained Clients Have On Counselor
Behavior

Harold A. Moses, Daniel J. Delaney, Michael J. Masucci and Thomas J. Long
Use of Audio Tapes in the Counseling Process

Title: Teacher Perceptions of Elementary Guidance

Principal investigator and department: Henry Kaczkowski (Edl. Psych.)

Purpose: To see what perceptions elementary teachers have of elementary counselors.

Subjects: 267 Teachers in 23 schools

Methods: A Questionnaire with responses being compared to teacher characteristics.

Major findings thus far: Teachers refer students to counselors for psychological reasons rather than for educational problems.

Publication references and/or plans: Publication in appropriate professional journal.

Date initiated: June, 1967

Additional staff: Lynton Piatt, Research Assistant

Title: Use of Audio Tapes in the Counseling Process

Principal investigators and departments:

Harold A. Moses (Edl. Psych.)
Daniel J. Delaney (Edl. Psych.)
Michael J. Masucci (Edl. Psych.)
Thomas J. Long (Edl. Psych.)

Purpose: To determine if audio tapes can be used in the counseling process to accomplish either or both of the following goals: 1. Expedite the counseling process, and 2. Reduce the expenditure of counselor time and energy per client.

Subjects: All clients seen at the Counseling Center at Chanute A.F.B. will serve as subjects, half of whom will be in the experimental group and the other half will serve as controls.

Methods: All clients, both experimental and control, seen at the Center will be given a pre-test battery consisting of the Bills Index of Adjustment and Values Scale, the Personal Orientation Inventory, a semantic differential scale, Hunt's Sentence Completion Scale, and a personal data sheet. The control group will be seen in the regular traditional fifty minute audio taped interview. The experimental group will receive counseling for only thirty minutes but will then listen to an immediate playback of the audio tape. Upon termination of counseling each client will be administered the same battery of tests he received before counseling. Gains shown by the results of the tests will be compared to determine if there are any significant differences between the groups. As a further check on the validity of the instruments, segments of tapes will be analyzed using the Truax-Carkhuff Scale.

Publication references and/or plans: Plan to publish the results in a professional journal.

Date initiated: September, 1967 **Estimated terminal date:** February or June, 1968

Title: The Effect Pre-Trained Clients Have On Counselor Behavior

Principal investigator and department: Thomas J. Long (Edl. Psych.)

Purpose: To determine whether pre-trained clients cause measurable changes in the behavior of Employment Service Counselors as rated by the Truax scales of (1) Accurate Empathy (2) Non-possessive Warmth (3) Genuineness.

Subjects: Arizona State Employment Service Counselors counseling male applicants for counseling from the A.S.E.S. Youth Opportunity Center, Phoenix, Arizona.

Methods: The study employs a random groups design using a control group and a posttest only. The design includes three equal, randomly selected groups of male clients (total $n = 72$) designated: control, model film - discussion, and model film only. Two counselors were randomly selected from the available population of Youth Opportunity Center counselors. These two counselors counseled an equal number of clients from each cell of the design. Every session was taped and the tapes were rated on the Truax scales. - Undesirable differences in the criterion measures are to be extracted from the differences due to treatments by an analysis of variance of a factorial design.

Major findings thus far: Client behavior during initial counseling interviews can be shaped by pre-training procedures. (Level of significance .10 or higher.) It is as yet undetermined whether counselor behavior is affected.

Date initiated: June, 1967 Estimated terminal date: January, 1968

Additional staff: Al Palmiotto, Unsupported Research Assistant

Historical Development of Education

Harry S. Broudy. Topics and Literatures in Philosophy of Education

Charles Daigh. The Role of Literature in the Education of Youth in
the Third Reich

David Tyack. A History of the Negro in the Twentieth Century (A book
currently in preparation)

Title: Topics and Literatures in Philosophy of Education

Principal investigator and department: Harry S. Broudy
(Hist. & Phil. of Ed.)

Purpose: To supplement items in Report of Philosophy of Education Project (completed June 30, 1967) and to codify items in that Report for IBM retrieval.

Publication references and/or plans: Report due December 14, University of Illinois Press, covering work from July 1, 1964 - July 1, 1967

Cooperating or supporting groups:

U. S. Office of Education 1964-67
University Research Board for 1967-68

Date initiated: September 1, 1967

Estimated terminal date: June 1968 if not continued

Additional staff: Ivan Snook, Research Assistant

Title: The Role of Literature in the Education of Youth in the Third Reich

Principal investigator and department: Charles Daigh (Sec. & Cont. Ed.)

Purpose: To determine what use was made of various types of literature in the German school and state youth organizations in an effort to evaluate the effectiveness of literature as an instrument of state propaganda.

Methods: Research into the records and attempts to find and interview persons connected with teaching and youth leadership in Nazi Germany. The period covered will be from 1933-1939.

Major findings thus far: Evidence tends to support the concept that completely non-political forms of literature may be used effectively to teach state-determined principles. Dissertation research on this topic confirmed that this area of education was considered important and used effectively by the Nazi government.

Date initiated: 1964 as dissertation topic

Title: A History of the Negro in the Twentieth Century (a book currently in preparation)

Principal investigator and department: David Tyack (Hist. & Phil. of Ed.)

Personnel

Thomas L. McGreal. An Investigation of Organizational Variables
Affecting Teacher Resignations

Ray H. Simpson and Marlowe Slater. Developing Uses of Norms for the
Occupational Characteristics Index

Title: An Investigation of Organizational Variables Affecting
Teacher Resignations

Principal investigator and department: Thomas L. McGreal
(Educational Placement Office)

Purpose: To identify organizational factors having caused teacher
resignations; to test the Herzberg theory of job motivation
with a teacher population.

Subjects: High School and Elementary teachers in the State of Illinois

Methods: Questionnaire to teachers who have resigned.
Questionnaire to teachers "satisfied" in their position.
factor analysis (varimax); orthogonal procrustes solution;
multivariate discriminate analysis to aid in identifying
factors which contribute to satisfaction or dissatisfaction
within an organization and to help make some conjectures
about the nature of teacher attitudes toward the job.

Publication references and/or plans: Thesis

Date initiated: September 1, 1967 Estimated terminal date: March 15, 1968

Title: Developing Uses and Norms for the Occupational Characteristics
Index

Principal investigators and department: Ray H. Simpson (Edl. Psych.)
and Marlowe Slater (Edl. Psych.)

Purpose: To discover the ways in which individuals and groups of
individuals solve the problems presented by the Occupational
Characteristics Index.

Subject: Pre-service and in-service teachers and Administrators.

Methods: This Index includes 21 personality Characteristics (traits). Alternate sets of directions to the respondents ask that they use the Characteristics to describe Self-Actual, Self-Ideal, Peer-Actual, Peer-Ideal, Subordinate-Actual, Subordinate-Ideal, Administrative Superior-Actual, and/or Administrative Superior-Ideal.

The respondent is confronted with 21 sets of Characteristics (traits) each. He is to rank order (or weight) the traits in each set from one to five (one is highest and five is lowest). When the task is complete, the respondent has compared each of the traits once and only once with every other to obtain an overall rank order (or weight) for each trait.

The computer sums the weights the respondent has assigned to each of the traits. It also sums and averages the weights assigned to each cluster of traits. (A cluster is composed of positively correlated traits each of which is also negatively correlated with the traits in an opposing cluster.) The computer will also provide a factor score derived from each paired set of opposing clusters.

Date initiated: July, 1965

Additional staff: Tom McGreal, Research Assistant

Teaching-Learning Process

Student Centered

Ernest F. Anderson. Performance of Junior College Transfers to the University of Illinois

Wesley C. Becker and Donald Holste. Individualized Instruction Demonstration Project

Sidney W. Bijou. Research in Remedial Guidance of Young Retarded Children with Behavior Problems Which Interfere with Academic Learning and Adjustment

K. H. Delhees and R. B. Cattell. Checking Motivation Component and Dynamic Structure Factors in Swiss Children

Bernard Farber. Kinship Patterns and Age-Grading among Families at Low Socioeconomic Levels

Carolyn J. Giffried, Laura Huelster and Dr. Phyllis Hill. A Study of the Relationship/s between Self-Concept and Choice of Physical Education Activity Class Costume

John Glavin. The Effect of Whispering in Classrooms of Conduct Problem Disturbed Children

Kenneth B. Henderson and Herbert Wills. Transfer of Problem Solving Ability Gained Through Learning by Discovery

Kennedy T. Hill and Merrill Paletz. The Role of Expectancy of Reinforcement in Adult-Child Interactions on Children's Performance

Merle B. Karnes. A Comparison of Two Approaches for Educating Pre-school Disadvantaged Children

Gilbert C. Kettelkamp. Silent Reading Achievement in Foreign Languages

Martin L. Maehr. Cognitive Rigidity and Task Persistence Under Varying Success-Failure Conditions

Genevieve B. Painter and Samuel A. Kirk. The Effect of a Tutorial Program on the Intellectual Development of Disadvantaged Infants

H. C. Quay and L. K. Brendtro. Education of Behaviorally Disordered Children in the Public School Setting

Stephen P. Quigley. A Longitudinal Study of the Effects of Fingerspelling on the Language and Communication Development of Very Young Deaf Children

Stephen P. Quigley. A Survey of the Effects of Fingerspelling on the Language and Communication Development of Deaf Children

Warren M. Steinman. Information Seeking in the Normal and Retarded Child as a Function of Stimulus Reliability and Reinforcement Density

Warren M. Steinman. The Effects of Varied Reinforcement Upon the Strength, Durability and Independence of Acquired Reinforcers

Ernest D. Washington. The Role of Overlearning and Color Cues in Teaching Disadvantaged Children Some Letters of the Alphabet

Morton W. Weir. Predictability and Expectancy in Children's Learning

J. L. Wolff. The Development of Mediation in Children

Others

Brian Carss, Heinz Von Foerster and Robert Chien. Cognitive Memory

Lawrence Doolittle, C. Benjamin Cox, John Erickson, Orrin Gould and William D. Johnson. Teaching in Disadvantaged Area Schools

K. B. Henderson and Richard Wolfe. Analysis of Methods of Justification Used by Mathematics Teachers

K. B. Henderson and Robert Rector. Study of the Effectiveness of Four Strategies for Teaching Mathematical Concepts

William D. Johnson. Performance Criterion for Teacher Evaluation

Merle B. Karnes. An Approach for Working with Parents of Disadvantaged Children: A Pilot Project

Kenneth M. Lansing. An Experiment in Teacher Education

Arye Perlberg. The Use of Portable Video Recorders and Micro-Teaching Techniques to Improve Instruction on the Higher Education Level

Arye Perlberg and Robert Tinkham. The Use of Portable Video-Tape Recorders and Micro-Teaching Techniques to Improve Instruction in Vocational-Technical Programs in Illinois

William R. Powell. Task Analysis Approach to Differentiated Instruction
at the College Level

B. O. Smith. Construction of Teaching Models

Kenneth J. Travers, Robert W. Heath and Leonard S. Cahen. Preferences
for Modes of Expression in Mathematics

Jerry Walker. Effect of Micro-Teaching on Prospective Teachers'
Self Evaluation

Charles M. Weller and Sidney Rosen. Coordination of DGS 141 (Physical
Science) and El. Ed. 335 (Science Methods)

Title: Performance of Junior College Transfers to the University of Illinois

Principal investigator and department: Ernest F. Anderson (Sec. & Cont. Ed.)

Purpose:

1. To describe the population of transfers from each junior college to the University of Illinois on fifteen selected variables and provide feedback of this information to the junior college concerned.
2. To determine if there are significant differences in the success of junior college transfers to the University which may be related to:
 - a. Sex
 - b. Type of college first attended
 - c. High school rank
 - d. Last junior college attended
 - e. Number of credit hours completed before transfer
 - f. Performance at the junior college
 - g. Campus attended
 - h. College entered at University
3. To identify the factors which have a significant relationship to the success of junior college transfers to the University of Illinois.

Subjects: The subjects for this study include the total population of junior college transfers who entered the Chicago Circle and Urbana campuses of the University of Illinois in the Fall of 1966. There are about 450 students in each sub-sample.

Methods: Ledgers of junior college transfers will be duplicated and used as basic data source. Descriptive data will be presented on the success of junior college transfers by junior college and college entered at the University.

Regression analysis will be utilized to identify the factors which make a significant contribution to the success of transfer students. Academic, personal, and institutional variables will be utilized in the analysis.

Cooperating or supporting groups: Office of the University Dean of Admissions and Records

Date initiated: April, 1967 Estimated terminal date: December, 1968

Title: Individualized Instruction Demonstration Project

Principal investigators and departments:

Wesley C. Becker (Bureau of Educational Research & Psychology)
Donald Holste (Principal, Prairie School, Urbana)

Purpose: To develop and demonstrate procedures for the systematic application of behavioral principles to maximize individual progress in the classroom.

Subjects: Primary grades and kindergarten, Prairie School, Urbana, Illinois

Methods: Comparative measures of process and progress are being gathered from classes using individualized instruction, with and without the systematic use of other behavioral principles, and from typical primary classrooms.

Publication references and/or plans: Over the next three years the project will be expanded to cover all primary classes at Prairie School. Beyond this our findings will determine whether or not the procedures are extended to the whole district.

Cooperating or supporting groups:

U. S. Office of Education-Title III
School District 116, Urbana

Date initiated: June 15, 1967 Estimated terminal date: June 14, 1970

Additional staff: Research Assistants:

Phillip Zediker
Sheryl Swanson
Nedra Babcock
Donald Thomas
Brenda Kehoe

Title: Research in Remedial Guidance of Young Retarded Children with Behavior Problems Which Interfere with Academic Learning and Adjustment.

Principal investigator and department: Sidney W. Bijou (Psychology)

Purpose: To apply operant principles to the intellectual and social development of preschool children.

Subjects: Preschool children with advanced development.

Preschool children who are marginal with respect to school attendance in terms of intellectual and emotional criteria.

Methods: Individual experimental analysis - each child serves as his own control here. There are baseline periods, experimental periods, return to baseline periods and duplicate experimental periods. Variability and observational measures include observer reliabilities.

Design requires relatively few subjects but each has to be seen many times.

Cooperating or supporting groups: Staff at the Child Behavior Laboratory
U. S. Office of Education
National Institute of Mental Health

Date initiated: 1965 Estimated terminal date: Will continue

Additional staff: LeRoy H. Ford, Jr.
Robert F. Peterson
Sophia Brown
Page Downe

Title: Checking Motivation Component and Dynamic Structure Factors
 in Swiss Children

Principal investigators and departments: K. H. Delhees (Psychology)
 R. B. Cattell (Psychology)

Purpose: To determine whether the dynamic structure of drives and
 sentiments resembles that found in American children.

Subjects: 150 children, 13 - 14 years of age

Methods: Objective motivational measures, correlated, and factored.

Major findings thus far: In planning stage.

Cooperating or supporting groups: Supported by National Institute
 of Mental Health

Date initiated: Summer, 1966 Estimated terminal date: Summer, 1967

Additional staff: Professor Hardi Fischer, Swiss Federal Institute
 of Technology, Zurich, Switzerland.

Title: Kinship Patterns and Age-Grading among Families at Low
 Socioeconomic Levels

Principal investigator and department: Bernard Farber (Institute
 for Research on Exceptional Children)

Purpose: To examine patterns of kinship relations among Negro and
 White families at low socioeconomic levels.

Subjects: Approximately 400 parents of children of preschool age.
 Residents of Champaign-Urbana.

Methods: Interviews with parents on kinship patterns and on child-
 rearing. Test data from preschool records.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: 1965 Estimated terminal date: 1969

Additional staff: Research Assistants:

 Jerome Gagerman,
 Charles Mindel

Title: A Study of the Relationship/s Between Self-Concept and Choice of Physical Education Activity Costume.

Principal investigators and departments:

Carolyn J. Gibfried (Department of Physical Education for Women)
Laura uelster (Department of Physical Education for Women)
Dr. Phyllis Hill (Department of Physical Education for Women)

Purpose: To investigate the relationship/s, if any, of costume choice and self concept.

Subjects: A random sample of students enrolled in the basic instruction program. (Pilot sample-50 subjects; study-approximately 250.)

Methods: Two instruments: 1) a questionnaire regarding costume choice, some history of past physical education experience, and factors relating to individual's environment. .
2) Catell personality test

Method: Results of the two instruments will be put through the computer and a correlation will be attempted between the two instruments.

Major findings thus far: pilot study has not yet been completed

Date initiated: November, 1967 Estimated terminal date: February, 1968

Title: The Effect of Whispering in Classrooms of Conduct Problem Disturbed Children

Principal investigator and department: John Glavin (Special Education & Children's Research Center)

Purpose: To determine whether the establishment of a whispering rule in the classroom alters the types of behavior emitted in a quantitative and qualitative fashion.

Subjects: 13 conduct problem children (ages 6-10) in two public school special education classes.

Methods: Introduction of whispering rule after an initial structured classroom period of several weeks. Alternate in 10 school-day cycles by using whispering or non-whispering in the structured situation. Collection of classroom behavioral data throughout all periods.

Date initiated: October, 1967 Estimated terminal date: early, 1968

Title: Transfer of Problem Solving Ability Gained Through Learning by Discovery

Principal investigators and departments:

Kenneth B. Henderson (Sec. & Cont. Ed.)

Herbert Wills (Sec. & Cont. Ed.)

Purpose: To determine whether a set of teaching stratagems to promote discovery by students enhance the students' ability to solve problems.

Subjects: 561 students in 24 classes of advanced algebra

Methods: Analysis of variance and covariance

Major findings thus far: Students who have been taught using the discovery stratagems can and do apply these in solving problems where such stratagems are appropriate. Although the group for which the teacher explained the stratagems did better than the group for which the teacher did not make the explanation, the difference between the two was not statistically significant at the .05 level.

Date initiated: 1965 Estimated terminal date: January, 1967

Title: The Role of Expectancy of Reinforcement in Adult-Child Interactions on Children's Performance

Principal investigators and departments:

Kennedy T. Hill (Psychology)
Merrill Paletz (Psychology)

Purpose: It has been found that elementary school age children perform at a higher level for adults of the opposite sex who are supportive than adults of the same sex. The project is directed at testing the notion that the child's expectancy of reinforcement from adults mediates this "cross-sex" effect.

Subjects: 128 children from second and/or third grade

Methods: Each child will be tested by two experimenters, one of each sex. During pretraining, one E will praise the child as he performs at simple tasks while the other E will be attentive but nonresponsive. The child will then perform at a marble sorting task while one of the two Es is either supportive or nonresponsive and the other E is no longer present. Thus a 2 (Positive E in pretraining) x 2 (Sex of E at experimental task) x 2 (Reinforcement condition of E during experimental task) x 2 (Sex of child) factorial arrangement will be used with four pairs of Es testing two children in each subcell.

Major findings thus far: Stevenson (1961) found that younger and older elementary school age children respond at a higher level of performance for adults of the opposite sex when the adults were supportive. Hill and Stevenson (1965) replicated this cross-sex effect and found moreover that children perform at a higher level for adults of the same sex when the adults are nonresponsive. It is hypothesized that children expect reinforcement more from same sex adults, so that when these adults are nonresponsive the child works harder in order to obtain the reinforcement. On the other hand, when the adults are supportive, children work more for the opposite sex adult from whom reinforcement is less expected and is more rewarding.

Publication references and/or plans: Journal publication is planned at the conclusion of the project.

Date initiated: November, 1967 Estimated terminal date: January, 1968

Additional staff: Four adults of each sex will serve as experimenters in order to make possible conclusions about sex of adult effects. Most Es are graduate students in psychology. The investigation is Mr. Paletz's doctoral dissertation research.

Title: A Comparison of Two Approaches for Educating Preschool Disadvantaged Children

Principal investigator and department: Merle B. Karnes (Special Education and Institute for Research on Exceptional Children)

Purpose: To test the efficacy of a special curriculum designed (1) to compensate for the effects of early deprivation, (2) to ameliorate the learning deficits accruing from such deprivation, and (3) to accelerate the rate of growth in learning. This is a longitudinal study.

Subjects: Four-year-old culturally disadvantaged subjects.

Methods: The subjects were drawn from the preschool population of culturally disadvantaged children within the community of Champaign and Urbana, Illinois. The subjects were selected on the basis of low socioeconomic status determined by father's occupation and place of residence. Subjects were required to be four years of age by December 1, and to have no previous preschool experience. Of the candidates referred for final screening, 60 were selected for placement in the program. These subjects were blocked on the basis of intelligence quotient, race, and sex and were assigned randomly to four classes (two experimental and two comparison) of 15 children each. The major differences between the programs for the experimental and comparison groups is that the first is highly structured and the latter is patterned after the traditional nursery school program. Highly structured refers to an approach whereby all activities were carefully programmed to ameliorate specific deficits of the disadvantaged child in learning as well as basic motivation. The curriculum was designed to systematically develop the basic language processes as well as the knowledge in the areas of mathematics, language arts, social studies and science. The development of language skills was given high priority in the curriculum. The model of the language processes which served as a guide in the construction of the Illinois Test of Psycholinguistic Abilities helped teachers devise appropriate remedial and developmental language activities. Activities were presented in a game format with physical manipulation of materials.

When these experimental children reached 5 years of age, they attended the public school kindergarten in the mornings and received an hour's supportive program in the afternoons. The comparison children attended public school kindergarten with no supportive help. Currently both groups are enrolled in the first grades of Champaign and Urbana.

Major findings thus far: The findings of the first two years of this longitudinal study suggest that the highly structured program is more effective than a traditional nursery school program in accelerating intellectual functioning. The experimental subjects gained 14 Binet IQ points the first year and the comparison gained only 8 points. The experimental subjects were superior in perceptual development and readiness to cope with school tasks. Children in both programs made significant but comparable progress in the development of psycholinguistic skills (14 months in a seven-month treatment program). At the five year level the experimental subjects lost 2 IQ points of the 14 they gained the first year. On measures of school readiness the experimental subjects were at the 93 percentile while the comparison reached the 54th percentile.

Publication references and/or plans: This report was published by the Institute for Research on Exceptional Children. A condensation of this report has been submitted for publication in a journal but has not appeared as yet.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: 1965

Estimated terminal date: The grant terminates in 1968; however, a proposal will be submitted to enable follow-up for a minimum of five years.

Additional staff:

1965-66	Research Assistants:	Psychologists:
	Carolyn Lorenz	Janet Wollersheim
	Audrey Hodgins	Robert Stoneburner
	Laurel Hertig	
	Constance Solberg	
	Carol Fogle	
	Josephine Harakul	
	Mary Jane McMillen	
	Jeanne Morris	
	Trenna Aukerman	
1966-67	Research Assistants:	Educational Specialist:
	Elizabeth Dawson	Audrey Hodgins
	Frances Sexaur	

Title: Silent Reading Achievement in Foreign Languages

Principal investigator and department: Gilbert C. Kettelkamp
(Sec. & Cont. Ed.)

Purpose: To explore means whereby the rate of silent reading ability in foreign language classes may be increased beyond the levels normally achieved.

Date initiated: January, 1968 Estimated terminal date: Indefinite

Title: Cognitive Rigidity and Task Persistence Under Varying Success-Failure Conditions

Principal investigator and department: Martin L. Maehr (Edl. Psych.)

Purpose: To determine the effects of a given personality trait (Cognitive Rigidity) in modulating the influence of success and failure.

Subjects: College undergraduates

Methods: Ss identified as high and low in Cognitive Rigidity will work at a pseudo psycholinguistics task under high and low stress conditions and with varying degree of success. Ss will be given the option of working at the psycholinguistics task as long as they like. The number of trials at the task will be the measure of persistence behavior.

Major findings thus far: Major work thus far has consisted of identifying appropriate measures of cognitive rigidity and testing the workability of various features of the design.

Publication references and/or plans: Possible Journal article

Cooperating or supporting groups: College of Education

Date initiated: September, 1967 Estimated terminal date: September, 1968

Additional staff: Daniel Stuempfig, Research Assistant

Title: The Effect of a Tutorial Program on the Intellectual Development of Disadvantaged Infants

Principal investigators and departments:

Genevieve B. Painter (Special Education)
Samuel A. Kirk (Special Education & Psychology)

Purpose: To determine (1) the developmental deficits exhibited by disadvantaged infants prior to intervention; (2) the materials, activities, and tutorial methods to ameliorate the deficits; (3) the logistic problems of home tutoring; (4) the effectiveness of the tutorial program.

Subjects: Culturally disadvantaged infants, ages eight months to two years.

Methods: The subjects were the younger siblings of four-year-olds attending an experimental nursery school for culturally disadvantaged children in the community of Champaign and Urbana, Illinois. Thirty infants whose ages fell between eight and twenty-four months, whose medical examination revealed no evidence of a physical limitation, and whose measured intelligence was within the range of 80 to 120 on the cattell Infant Intelligence Scale were randomly assigned to an experimental and a control group. The experimental infants were each tutored in their homes for one hour a day, five days a week, over a period of one year. Each child was given a highly structured program designed to aid in the amelioration of his developmental deficits at the time of his entry into the program and amended to accelerate his subsequent development. At the end of one year of tutoring, the first phase of the study, the experimental and control subjects were compared on tests of intelligence and tests of language, conceptual, and sensory-motor development.

The second phase of the study will compare these children at age four with the pre-nursery school performance of their older siblings who were enrolled in the nursery school at age four, but who had no earlier intervention.

Major findings thus far: The findings of the first year of this longitudinal study show the experimental group to be superior in scores on tests of measured intelligence, and tests of language, conceptual, and sensory-motor development.

Publication references and/or plans: The first phase of the study was reported in detail in the Ed.D. dissertation by Genevieve Painter, "The Effect of a Tutorial Program on the Intellectual Development of Disadvantaged Infants," October, 1967. A condensation of the dissertation has been written and will be submitted for publication in a journal.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: 1965

Estimated terminal date: The grant terminates in 1968, however, a proposal will be submitted to enable follow-up.

Additional staff:

Will Beth Stephens, Research Assistant Professor

Research Assistants:

Jean Fisher

Glenda Hewlett

Elizabeth Platt

Patricia Tymchyshyn

Rivka Yavin

Title: Education of Behaviorally Disordered Children in the Public School Setting

Principal investigators and departments:

H. C. Quay (Psychology)

L. K. Brendtro (Special Education)

Purpose: To investigate the application of behavior modification principles to the special class with conduct and personality problem children.

Subjects: Two classes of 5 - 10 elementary children, behaviorally disordered in the local area.

Methods: Data being collected on reinforcement modes and schedules, programmed learning, learning disabilities, behavioral characteristics, teacher-pupil interaction, curriculum content, recreation techniques.

Cooperating or supporting groups: Childrens Research Center - Urbana Public Schools

Date initiated: September, 1966 September, 1970

Title: A Longitudinal Study of the Effects of Fingerspelling on the Language and Communication Development of Very Young Deaf Children.

Principal investigator and department: Stephen P. Quigley
(Special Education)

Purpose: To determine the effects of fingerspelling on the language and communication development of very young deaf children.

Subjects: Twenty-four deaf children in three classes in the pre-school department of the Indiana School for the Deaf. Subjects ranged from 3 1/2 to 4 1/2 years of age at the time of initiation of the project in September, 1963.

Methods: This is a developmental study which compares the language and communication development of the subjects with data generally available on the performance of deaf children in language and communication in schools throughout the country.

Major findings thus far: Testing on the project will be completed in the spring of 1968 and results should be available in the fall of 1968.

Publication references and/or plans: Final publication plans are not yet complete. Papers have been delivered at conventions on this project and have been printed in the proceedings of those conventions.

Cooperating or supporting groups: The study is part of a program of Research on the Behavioral Aspects of Deafness supported by the Vocational Rehabilitation Administration.

Date initiated: September, 1964 Estimated terminal date: December, 1968

Additional staff: Jill Quadagno, Assistant Specialist in Education
Carol DeVries, Research Assistant

Title: A Survey of the Effects of Fingerspelling on the Language and Communication Development of Deaf Children.

Principal investigator and department: Stephen P. Quigley (Special Education)

Purpose: To determine the effects of fingerspelling on the language and communication development of pre-lingual profoundly deaf children.

Subjects: Approximately 120 experimental subjects in three residential schools for deaf children and approximately 120 comparison subjects in three other residential schools for deaf children.

Methods: The study employs a matched-groups design with the experimental and comparison subjects being matched on such relevant variables as age, IQ, number of years of schooling, degree and type of hearing loss, and age at onset of hearing loss.

Major findings thus far: The study is longitudinal and is being conducted over a five-year period. The testing will be completed in the fall of 1967 and results will be available in the fall of 1968.

Publication references and/or plans: Final plans for publication have not yet been completed. Several papers have been delivered on the project at conventions and have appeared in the proceedings of those conventions.

Cooperating or supporting groups: The project is part of a program of research supported by the Vocational Rehabilitation Administration.

Date initiated: September, 1963 Estimated terminal date: September, 1968

Additional staff: Jill Quadagno, Assistant Specialist in Education
Carol DeVries, Research Assistant

Title: Information Seeking in the Normal and Retarded Child as a Function of Stimulus Reliability and Reinforcement Density

Principal investigator and department: Warren M. Steinman (Special Education & Children's Research Center)

Purpose: To identify children who tend not to use the information available in a stimulus complex; to remedy this deficit, and to test the information theory analysis of conditioned reinforcement.

Subjects: Normal children (ages 3-8), mentally retarded children, and children classified as having discrimination-learning deficits.

Methods: Phase I -- The children will have two responses concurrently available, each capable of producing reinforcement on 50% of the trials. Emitting Response 1 (R1) will produce a blue light on a random 50% of the trials and a red light on the other 50%. Reinforcement will always follow the blue light and never follow the red light. Thus, R1 always results in information concerning reinforcement although reinforcement occurs on only 50% of these responses. Emitting Response 2 (R2) always produces a yellow light. In the presence of the yellow light reinforcement will occur 50% of the time. Thus, the yellow light is an unreliable predictor of reinforcement.

Phase II-- Maintaining the above format, the predictabilities of the stimuli and the reinforcement densities of the two responses will be adjusted in order to produce information seeking in children who do not demonstrate it and to test the limits of information's behavioral control in children who do demonstrate it.

Cooperating or supporting groups: Dr. S. W. Bijou - Colonel Wolfe School.

Date initiated: November, 1967

Estimated terminal date: Termination dates will depend upon the value of the information obtained and the directions that the initial data suggest.

Title: The Effect of Varied Reinforcement Upon the Strength, Durability, and Independence of Acquired Reinforcers

Principal investigator and department: Warren M. Steinman (Special Education)

Purpose: To extend and refine the writer's previous research on the development of highly effective, durable, and situationally independent conditioned reinforcers.

Subjects: Children (ages 3 to 10)

Methods: Several experiments are planned. Methodologically they are all similar in that each child will learn to perform a two-component operant chain under at least two reinforcement conditions. One of these conditions will involve varied reinforcement. The ways in which the reinforcers vary will determine the particular experiment. In one experiment, the reinforcers will differ in their magnitude. In another experiment, they will differ in stimulatory characteristics other than their amount of reinforcement. In a third experiment, the children will be able to select the reinforcer to be delivered on a given trial and this will be compared with effects when this selection factor is not present. The importance of randomness in the variety of reinforcers will also be investigated. The effect upon the conditioned reinforcing properties of a stimulus paired with the above varied-reinforcement conditions will be assessed using procedures developed in the present writer's previous research on this topic.

Major findings thus far: The particular research described above has not yet been started. However, the writer's previous research has clearly indicated that summated conditioned reinforcing properties can, indeed, be developed through procedures similar to those described. The question remains: How much can they be summated and to what extent do the several aspects of variety influence the summation?

Cooperating or supporting groups: A proposal is now being prepared for submission to NIMH requesting financial support.

Date initiated: Early 1968 Estimated terminal date: Unknown

Title: The Role of Overlearning and Color Cues in Teaching Disadvantaged Children Some Letters of the Alphabet

Principal investigator and department: Ernest D. Washington
(Special Education)

Purpose: To develop an efficient method to teach letters of the alphabet to disadvantaged kindergarten children.

Subjects: Kindergarten children

Methods: Four groups of children with ten children per group in a two by two factorial design. Children are to be tested individually in a matching to a sample task.

Major findings thus far: Color cues are insufficient in facilitating the learning of letters, overlearning seems to be a more important variable. This finding comes from my doctoral dissertation. This thesis research will be followed-up by another study to determine the importance of overlearning in the ability to name letters of the alphabet.

Date initiated: December, 1967

Title: Predictability and Expectancy in Children's Learning

Principal investigator and department: Morton W. Weir (Psychology)

Purpose: To investigate the effects on one child's problem-solving of his observing different levels of success on the part of another child.

Subjects: Elementary school children (7 - 11 years)

Methods: Pairs of children will be presented with a problem-solving task such that each child works separately. Each child will be able to observe the successes or failures of the other child as they take turns responding, but neither child will be able to see exactly what response led to the other child's success (or failure). The game will be rigged so that the successes of one of the two children can be arbitrarily determined by the experimenter. By this means we hope to determine the effects on one child's problem-solving efforts of his knowledge that another child is enjoying a high (or moderate, or low) level of success in the same task.

Major findings thus far: This is a new study, but it relates to earlier work which indicates that the degree of success a child expects when he is faced with a problem is an important determiner of his behavior. In this study, we are attempting to influence a child's expectancy for success by allowing him to observe the success (or failure) of another child.

Publication references and/or plans: If the results of this study are meaningful, it will be submitted for publication in a journal such as Child Development or the Journal of Experimental Child Psychology.

Cooperating or supporting groups: Supported by a grant from the National Institute of Child Health and Human Development.

Date initiated: Spring, 1968 Estimated terminal date: Summer, 1968

Additional staff: Robert Helgoe, Research Assistant

Title: The Development of Mediation in Children

Principal investigator and department: J. L. Wolff (Edl. Psych.)

Subjects: Nursery-schoolers and third-graders

Date initiated: September, 1967 Estimated terminal date: August, 1968

Additional staff: John Guthrie, Research Assistant

Title: Cognitive Memory

Principal investigators and departments:

Brian Carss (Sec. & Cont. Ed.)
Heinz Von Foerster (Elec. Eng.)
Robert Chien (Gen. Eng.)

Purpose: An Epistemological Approach to Information Storage
and Retrieval

Major findings thus far: Results of this study will be significant in learning theory in general, specifically in the development of teaching machines that respond to the individual needs in natural language; in linguistic theory, specifically in content invariant representations (e.g., translations); in mathematical graph theory and combinatorics; in heuristic programming and computerized problem solving; and, of course, in a fundamental rethinking of the information storage and retrieval problem in terms of operable cognitive memory systems.

Cooperating or supporting groups:

U. S. Office of Education
Coordinated Science Laboratory

Date initiated: September, 1967 Estimated terminal date: August, 1973

Title: Teaching in Disadvantaged Area Schools

Principal investigators and departments:

Lawrence Doolittle (Edl. Admin. & Suprv.)
C. Benjamin Cox (Sec. & Cont. Ed.)
John Erickson (Sec. & Cont. Ed.)
Orrin Gould (Sec. & Cont. Ed.)
William D. Johnson (Sec. & Cont. Ed.)

Purpose: To develop teaching models appropriate for teaching in schools in disadvantaged areas in the fields of social studies, science, and English.

Subjects: Inner city teachers, student teachers, intern teachers.

Methods: Audio tape of two classes for each teacher to be analyzed using Flanders Interaction Analysis and Concept Development.

Personality data - California Psychological Inventory

Strong Vocational Inventory - college record - open ended questions.

Major findings thus far: Description of sample teachers in the inner city

Publication references and/or plans: Text contract with McGraw-Hill

Cooperating or supporting groups:

Kettering Foundation
U. S. Office of Education
Chicago Public Schools

Date initiated: 1966 Estimated terminal date: December, 1967

Title: Analysis of Methods of Justification Used by Mathematics Teachers

Principal investigators and departments:

K. B. Henderson (Sec. & Cont. Ed.)
Richard Wolfe (Sec. & Cont. Ed.)

Purpose: To ascertain how mathematics teachers establish a proposition (if they do this at all) for their students.

Subjects: Teachers of algebra and geometry

Methods: Analysis of tapes of classroom teaching

Major findings thus far: The teachers infrequently justify - prove or make plausible - propositions which they teach their students. Only two strategies have been identified.

Date initiated: May, 1966 Estimated terminal date: Undetermined

Title: Study of the Effectiveness of Four Strategies for Teaching Mathematical Concepts

Principal investigators and departments:

K. B. Henderson (Sec. & Cont. Ed.)
Robert Rector (Sec. & Cont. Ed.)

Purpose: To ascertain the efficacy of four strategies for attaining four levels of understanding of mathematical concepts.

Subjects: Junior college mathematics students

Methods: Analysis of variance

Date initiated: Fall, 1966 Estimated terminal date: September, 1968

Title: Performance Criterion for Teacher Evaluation

Principal investigator and department: William D. Johnson (Sec. & Cont.Ed.)

Purpose: To evaluate teaching competence in terms of learner achievement.

Subjects: University Freshman and Introduction to Education Students

Methods: 5 packaged lessons with behavioral goal statements and criterion tests are being produced. Lesson packets are to be taught to college freshman by Introduction to Education Students. Averaged learner scores will be adjusted by lesson difficulty and learner aptitude.

Major findings thus far: statistical procedures have been established

Date initiated: June, 1967 Estimated terminal date: June, 1968

Title: An Approach for Working with Parents of Disadvantaged Children: a Pilot Project

Principal investigator and department: Merle B. Karnes (Special Education and Institute for Research on Exceptional Children)

Purpose: To test the effectiveness of an approach for working with mothers of disadvantaged preschool children as reflected in the intellectual functioning and psycholinguistic development of these children.

Subjects: Three- and four-year-old culturally disadvantaged children

Methods: This pilot investigation was conducted for a period of twelve weeks during the spring of 1966. The mothers of the experimental children attended eleven weekly two-hour sessions in the neighborhood elementary school. Three experienced preschool teachers conducted the meetings, and each teacher was responsible for a group of five mothers. As part of the teaching team, the mothers were paid \$3 a session, an hourly rate of \$1.50, which exceeded, in most cases, the usual hourly wage of most working mothers. They received no remuneration for the time spent working with their children at home. The teachers encouraged the mothers to feel that they were an important part of an educational team and that their assistance was needed to develop and to test educational activities for preschool children. The immediate benefits to their own children as well as the general benefits of the research to other children were stressed.

At the beginning of each session the mothers made educational activities to use during the following week in teaching their children at home. Inexpensive materials or items commonly found in the home were incorporated into these activities: a sock puppet; a homemade flannel board; lotto and matching games made with gummed seals, with geometric shapes and with color chips; counting books made from magazine pictures; sorting and matching activities using miscellaneous household items and an egg carton for a sorting tray; classifying activities based on pictures cut from furniture and clothing catalogues. The teachers taught the mothers appropriate songs and finger plays and distributed copies as a teaching aid at home. In addition, books and puzzles were available for the mothers to take home for use with their children during the coming week.

A discussion of appropriate ways to use these materials at home followed each work period. The teachers attempted to achieve cooperative planning and to discourage the view that teachers are authority figures from whom all directions issue. During a coffee break, mothers informally reported on their success or difficulty with the teaching assignment of the previous week. They discussed differences among their children

in connection with these activities, and the teachers made suggestions about how they might accommodate such differences. The teachers emphasized the importance of repeating and extending the use of materials made earlier in the program.

On the basis of information supplied by mothers, absences were for legitimate reasons. When a mother was absent, the teacher took the learning activities and the instructions for them to the home during the following week. In addition, the teacher visited each home at two-week intervals to become acquainted with the child, to ascertain to what extent the mother actually worked with her child, to offer further teaching suggestions, and to evaluate the appropriateness of the activities for these particular children.

Major findings thus far: The disadvantaged preschool children whose mothers participated in the eleven-week parent program made significant progress in intellectual functioning as measured by the Stanford-Binet Individual Intelligence Test (7.46 IQ points) as contrasted with an .07 IQ gain of the control subjects whose mothers were involved in no parent program. The growth of the experimental subjects in language development as measured by the Illinois Test of Psycholinguistic Development was significantly beyond that expected on the basis of increased chronological age and superior to the gains made by the control group.

Publication references and/or plans: Scheduled for publication in the January, 1968 issue of Merrill-Palmer Quarterly Journal.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: March to June of 1966

Estimated terminal date: Terminated

Additional staff:

Research Assistants:

Carolyn Lorenz
Virginia Shuman
Margaret Reeder

Psychologists:

Willis Wright
William Studley

Title: An Experiment in Teacher Education

Principal investigator and department: Kenneth M. Lansing (Art & Elementary Education)

Purpose: To see if integrated course-work applied to practical experiences in teaching children will favorably influence the teaching of art to children.

Subjects: 32 Elementary Education Majors

Publication references and/or plans: The results will be published in research journals in art education.

Cooperating or supporting groups: The Elementary Education Department and the Art Department, University of Illinois

Date initiated: September, 1967 Estimated terminal date: June, 1968

Title: The Use of Portable Video Recorders and Micro-Teaching Techniques to Improve Instruction on the Higher Education Level.

Principal investigator and department: Arye Perlberg (Voc. Tec. Ed. and General Eng.)

Purpose: To examine uses of portable video-tape recorders and micro-teaching techniques to improve instruction on the higher education level, and to explore strategies for establishing "helping relationships" between a teaching methods specialist and university faculty.

Subjects: Faculty member of the Department of General Engineering, University of Illinois

Methods: Research activities were designed in three models:
(a) The "individual model," in which "helping relationships" are established between a senior faculty member and a teaching specialist for a systematic analysis of the course objectives and methods of teaching.
(b) The "group model," a weekly seminar for all new instructors in a specific course to discuss and experiment with teaching methods.
(c) A "course research team" to re-evaluate and structure objectives, subject matter content and teaching methods of a specific course. In all of these models, emphasis is on the adaptation of micro-teaching techniques. The video recorders are used as feedback mechanisms.

Major findings thus far: Faculty was receptive to the use of techniques and media in the three experimental models. Increased awareness of teaching problems, intensive involvement in instructional improvement activities and certain behavioral changes in the teaching process were achieved. Faculty members prefer to be taped in their classroom rather than in a television studio. To obtain cooperation, participants must realize that activities are designed to solve their real problems. A non-threatening and encouraging climate must be assured.

Publication references and/or plans: A report will be published.

Cooperating or supporting groups:

The research is supported by a University Grant
The researcher cooperates with the Office of Instructional Resources

Date initiated: September, 1967 Estimated terminal date: August, 1968
(A pilot study was carried on in 1966-67)

Additional staff:

Instructors in General Engineering:
David Claude O'Bryant
Waldo Dean Martin
Walter Hugh Miller

Title: The Use of Portable Video-Tape Recorders and Micro-Teaching Techniques to Improve Instruction in Vocational-Technical Programs in Illinois

Principal investigators and departments:

Arye Perlberg (Voc. Tec. Ed. and General Eng.)
Robert Tinkham (Voc. Tec. Ed.)

Purpose: To explore some uses of portable video-tape recorders and micro-teaching techniques to improve teacher education (Student teaching in particular) and inservice training in vocational technical education.

Subjects: Student teachers in the Department of Vocational and Technical Education, University of Illinois
Faculty of Parkland and Danville Junior Colleges
Faculty of Decatur and Sterling Area Vocational Schools.

Methods: Student teachers will be trained in the micro-teaching techniques laboratory. Cooperating teachers will also be oriented to the techniques and use of the media. Regular student teaching procedures will be supplemented by self analysis by the student teachers with the aid of video feedback and improved analysis in supervisory sessions by college professor through analysis of student teacher tapes sent to the college. Similar activities will be conducted in inservice training programs. It is a pilot feasibility study, evaluation will be based on researchers and participants reactions.

Major findings thus far: Student teachers, cooperating teachers, faculty representatives from Junior Colleges and Area vocational schools see it as a promising technique and are cooperating.

Publication references and/or plans: A report will be published.

Cooperating or supporting groups:

Board of Vocational Education and Rehabilitation
Vocational and Technical Education Division
Springfield, Illinois

Date initiated: September, 1967 Estimated terminal date: August, 1967

Additional staff: Dick Nelson, Research Assistant

Title: Task Analysis Approach to Differentiated Instruction at the College Level

Principal investigator and department: William R. Powell
(Elementary Education)

Purpose: To experiment with behaviorial objectives derived through task analysis, combined with some simulated instruction and problem-solving measurement techniques to provided differentiated instruction at college level. To see if system is generalizable to others through an internship.

Subjects: 92 students enrolled in reading methods class (El. Ed. 336)

Methods: Large group instruction with adapted and flexible small group instruction.

Publication references and/or plans: Journal article

Date initiated: Fall, 1967 Estimated terminal date: June, 1968

Additional staff: Research Assistants:
Patricia D. Stoll
Claudia Nelson
Terry Auger

Title: Construction of Teaching Models

Principal investigator and department: B. O. Smith (Hist. & Phil. of Ed.)

Purpose: A continuation of the study of teaching strategies with emphasis on model development.

Methods: Logical construction

Major findings thus far: A number of teaching structures are used by teachers in content fields at the high school level.

Publication references and/or plans:
A Study of the Strategies of Teaching
Bureau of Educational Research

Date initiated: 1962 Estimated terminal date: June, 1968

Additional staff: Robert Precians, Research Assistant

Title: Preferences for Modes of Expression in Mathematics

Principal investigators and departments:

Kenneth J. Travers, (Sec. & Cont. Ed.)
Robert W. Heath (Stanford University)
Leonard S. Cahen (Educational Testing Service)

Purpose: To test the interactive effects of (a) teaching mode, (b) pupils' cognitive preferences and (c) subject matter topics (categorized by cognitive preference) and pupil achievement.

Subjects: 1200 fifth grade mathematics students

Methods: Three topics (verbal, graphic and symbolic) are crossed with three teaching modes (verbal, graphic and symbolic) and assigned randomly to classes. The topics are presented by film. Analysis of variance and discriminant analysis will be used.

Major findings thus far: A test of cognitive preferences has been developed, having psychometric properties appropriate for exploratory research.

Publication references and/or plans: Kenneth J. Travers, and other.
Preferences for Modes of Expression in Mathematics
Research Memorandum Number 7, Center for Research and Development in Teaching, Stanford University, May, 1967

Cooperating or supporting groups: Stanford University and
OE Grant OE-6-10-078

Date initiated: November, 1966 Estimated terminal date: November, 1968

Additional staff:

Donald Edgar, Roderick Brod: research assistants, Stanford
Herman Neufeld, consulting teacher, San Jose, California

Title: Effect of Micro-Teaching on Prospective Teachers' Self Evaluation

Principal investigator and department: Jerry Walker (Sec. & Cont. Ed.)

Purpose: Assess some effects of micro-teaching on prospective teachers

Subjects: Eleven seniors engaged in methods class prior to student teaching

Methods: Following each of five micro-teaching experiences students will rate themselves on a 14-item, 10-point scale.

Date initiated: October, 1967 Estimated terminal date: November, 1967

Title: Coordination of DGS 141 (Physical Science) and El. Ed. 335 (Science Methods)

Principal investigators and departments:

Charles M. Weller (Sec. & Cont. Ed.)
Sidney Rosen (Physical Science and Sec. & Cont. Ed.)

Purpose: To improve undergraduate instruction for elementary teachers in both the sciences and science methods courses.

Subjects: Students in DGS 141 (Physical Science) El. Ed. 335 (Science Methods)

Methods: Eleven sophomores in elementary education are concurrently enrolled in section S of DGS 141 and Section 1 of El. Ed. 335. Specific attempts are being made to coordinate experiences in both courses. For example, students will attempt to translate some of the concepts learned in DGS 141 into learning activities for elementary school children in micro-teaching situations. At the present stage, only subjective appraisal of increased student enthusiasm for learning and teaching science is being done by the principal investigators.

Cooperating or supporting groups: College of Education, College of Liberal Arts, and Undergraduate Instructional Awards Program.

Date initiated: June, 1967

Testing, Measurement and Evaluation

- Phyllis B. Arlt and John O'Neill. The Further Standardization of a Measure of the Language Potential of Children
- Thomas S. Baldwin. Development of Achievement Measures for Trade and Technical Education
- R. B. Cattell. Personality Factors in Children (12-14 year age range)
- Gary M. Clark and John Paraskevopolus. A Factor Analytic Study of the Test of Social Inference
- Richard Colwell. Music Achievement Tests
- J. A. Easley, Jr. and Richard A. Avner. A System for Instructional Response Analysis
- Walter Feinberg and David Louey. Evaluation of Social Workers and Volunteers Engaged in an Experimental Course on Problems of Poverty
- Ernest R. House. Evaluation of the State Gifted Program
- Charles Hulin. An Investigation of the Effects of Time Limit Scores
- Frances Johnson and Harold A. Peterson. SALI: Speech and Language Index, A Diagnostic and Prognostic Profile
- Thomas S. Baldwin and James B. Jones, Jr. Achievement Measures Project
- William Hurder, Alex Bannatyne, James Chalfant and Margaret Scheffelin. Idiographic Research Project
- T. Ernest Newland. Blind Learning Aptitude Test (BLAT)
- C. H. Patterson. The MMPI as a Selection Device in Education
- Andrea Rothbart. Computer Assisted Instruction in Testing and Teaching Mathematics
- Keith G. Scott. Short-term Memory in Retarded and Normal Children

Thomas H. Shriner and Margaret Scheffelin. Sound-Blending Abilities
of Children

Mary Slaughter, Olive Young and Laura Huelster. An Analysis of the
Relationship Between Body Type and Personality Traits
of College Women

Kenneth J. Travers. A Genralizability Approach to Correction for
Attenuation

Center and Office Programs

J. Thomas Hastings, Robert E. Stake and James L. Wardrop. Center for
Instructional Research and Curriculum Evaluation

John Paraskevopoulos. Office of Testing and Research, University of
Illinois

Elwood Leslie, Larry Aleamoni, Shushila Singhal, Donald Heil, William
Stallings, and Susan Feldman. Measurement and Research
Division of The Office of Instructional Resources

Title: The Further Standardization of a Measure of the Language Potential of Children

Principal investigators and departments:

Phyllis B. Arlt (Speech)
John O'Neill (Speech)

Purpose: The purpose of this study is to refine and further evaluate a measure of the language potential of children.

Subjects: A test instrument, which is a children's version of the Schuell Short Test for Aphasia has been standardized on 240 "normal" pre-school and elementary school children. It is the objective of this study to utilize the instrument in the evaluation of the language potential of children who exhibit auditory dysfunctions, visual disturbances and speech and language dysfunctions in an effort to determine the validity and practicality of the instrument in the evaluation of such children.

Methods: The evaluative instrument will be administered to a population of typical children who will be matched in terms of age, sex, verbal IQ and sample size with the standardization population. These same children will also be administered the Peabody Picture Vocabulary Test. Item analyses will be conducted for each individual test item in terms of age, sex, and verbal IQ of the subjects in the standardization group and the population to be tested as part of this study.

Major findings thus far: The test has been standardized on 240 children of normal development, equally distributed as to sex, and with IQ averaging 113. Means and Standard Deviation for each variable has been established at 12 age levels (6 month intervals, ages 3-6, for male and female).

Cooperating or supporting groups:

Head Start, Urbana
Kindergartens, Urbana
Nursery Schools, Urbana and Champaign
Child Development Laboratory, University of Illinois
St. Louis Special District for Education of the Handicapped
Lincoln State School for the Mentally Retarded
Anderson Speech Clinic, Anderson, South Carolina
Institute of Physical Medicine and Rehabilitation, Peoria, Ill.
Meriam School for Emotionally Disturbed, St. Louis

Date initiated: September, 1966 Estimated terminal date: 1968

Additional Staff: Research Assistants:
Miss Nancy Robey
Miss Carol Prutting
Mrs. Barbara Castning
Miss Judith Rieder

Title: Development of Achievement Measures for Trade and Technical Education

Principal investigator and department: Thomas S. Baldwin (Voc. Tec.. Ed.)

Purpose: To develop standardized tests for VoTec Education

Subjects: Subject matter content in: Auto Mechanics; Machine Shop; Air Conditioning; Electrical Installation; Radio-TV Repair; Data Processing; Electronics

Methods: Psychometric-Test development

Major findings thus far: Data analysis now being conducted - tests have been administered in six states.

Publication references and/or plans: Quarterly progress reports - plan to publish results in Ed. & Psych Measurements

Cooperating or supporting groups: Sponsored by USOE being conducted jointly with North Carolina State University.

Date initiated: March, 1966 Estimated terminal date: March, 1969

Additional staff:

J. B. Jones, Research Associate
Richard Swanson, Research Assistant
Approximately 12 staff members at North Carolina State University.

Title: Personality Factors in Children (12-14 year age range)

Principal investigator and department: R. B. Cattell (Psychology)

Purpose: To develop an objective-analytic test battery for measuring primary dimensions of personality in children. This battery is then to be used to determine nature-nurture ratios for the personality factors at the 12 year age level.

Subjects: Test development phase -- 800 - 1,000 subjects
(American, Austrian, Japanese)

Nature-nurture study -- 5,000 - 10,000 subjects
(twins, half-sibs, unrelated children reared together, etc.)

Methods: The initial battery development is being done essentially by factor analytic methods. Measures are derived from both questionnaires and objective tests of personality. The nature-nurture study will utilize Cattell's multiple abstract variance analysis (MAVA) method on data consisting of scores on the measured factors.

Major findings thus far: The initial factor analyses are currently being completed and no findings are as yet available.

Cooperating or supporting groups: National Institutes of Mental Health

Date initiated: Officially Fall (1966) but test development has been proceeding for some years

Estimated terminal date: No earlier than 1968-69

Additional staff: John R. Nesselroade, Research Associate
John J. Ford, Research Assistant

Title: Checking 10 factor structure in A & B forms of SMAT
(School Motivation Analysis Test)

Principal investigators and departments: R. B. Cattell (Psychology)
and A. B. Sweney (Psychology)

Purpose: To evaluate motivation component structure secondarily.

Subjects: 180 13-14 year olds

Methods: Objective motivational measures will be correlated and factored.
(Factor Analysis)

Cooperating or supporting groups: National Institute of Mental Health

Date initiated: Spring, 1966

Additional staff: S. Krug, Research Assistant

Title: A Factor Analytic Study of the Test of Social Inference

Principal investigators and departments:

Gary M. Clark (Special Education)
John Paraskevopolos (Special Education)

Purpose: To study the factors involved in the experimental test,
the test of social inference.

Subjects: Adolescent, educable, mentally retarded youth from public
schools and residential facilities.

Methods: Factor analysis using data from test of social inference
and related measures of social behavior and adjustment.

Publication references and/or plans: Publication in an appropriate
professional journal.

Cooperating or supporting groups: Parsons State Hospital & School
Parsons, Kansas

Date initiated: October, 1967 Estimated terminal date: June, 1968

Title: Music Achievement Tests

Principal investigator and department: Richard Colwell (Sec. & Cont. Ed.)

Purpose: Placement and predictive tests

Cooperating or supporting groups: Follett Foundation

Date initiated: 1962 Estimated terminal date: 1969

Additional staff: Tom Mier, Sherri Bell

Title: A System for Instructional Response Analysis

Principal investigators and departments:

J. A. Easley, Jr. (Sec. & Cont. Ed.)
Richard A. Avner (Computer-based Educational Research Laboratory)

Purpose: To assist developers of instructional programs on the PLATO
system in retrieving relevant facts from response data banks
and in making appropriate modifications to their programs.

Subjects: High school students

Methods: Systems design

Publication references and/or plans: Annual and semi-annual reports
to the U. S. Office of Education

Cooperating or supporting groups: Computer-Based Education and
Research Laboratory, supported by the U. S. Office of
Education

Date initiated: October, 1965 Estimated terminal date: August, 1966

Additional staff: Research Assistants:
Nitza Yarom
James Kraatz
Annabeth Dolline

Research Associate:
Richard Dennis

Title: Evaluation of Social Workers and Volunteers Engaged in an
Experimental Course on Problems of Poverty.

Principal investigators and departments:

Walter Feinberg (Hist. & Phil. of Ed.)
David Louey, Oakland University, Michigan

Purpose: To test changes in attitude occurring among 60 social
workers and volunteer personnel who underwent an
Office of Economic Opportunity sponsored course in the
problems of poverty.

Methods: A number of psychological, attitudinal and cognitive
tests were administered prior to the beginning of the
course and again at completion of the course.

Major findings thus far: Tentative indications are that very little
change in attitude occurred although the data may yield
some interesting cultural factors.

Publication references and/or plans: Limited publication to OEO
staff and personnel.

Cooperating or supporting groups: Office of Economic Opportunity

Date initiated: January, 1967 Estimated terminal date: February, 1968

Title: Evaluation of the State Gifted Program

Principal investigator and department: Ernest R. House (Regional Laboratory, Northfield, Illinois)

Purpose: To evaluate the State of Illinois Program for the Gifted through a 3-year study conducted by the regional laboratory

Subjects: All phases of the planning and implementation of the State planning for program development for gifted children, including the Department of Program Development for Gifted Children, OSPI, and the major parts of the plan, including: (1) Reimbursement, (2) Demonstration Centers, (3) Experimental Projects, (4) Field Consultants at the State Level, and (5) State Support for Programs to Increase the Number of Specially Trained Personnel.

Methods: The initial work on methodology and design has been initiated and will continue during the bulk of the 1967-68 academic year.

Publication references and/or plans: Wide dissemination throughout the state and outside the state is being planned.

Cooperating or supporting groups: The primary work on the project is being carried out by the regional lab, with the financial support coming from the OSPI, Department of Program Development for Gifted Children. The contributing group on this campus is the Academic Year Institute on the Gifted, with graduate fellows as follows: Sandra T. Addy, Theresa Hopkins, Alice C. Ore, Sandra Stallman, Joe M. Steele, and Mona J. Tempero. Adrian J. Durant, Jr., director.

Date initiated: September, 1967 Estimated terminal date: Summer, 1970

Title: An Investigation of the Effects of Time Limit Scores

Principal investigator and department: Charles Hulin (Psychology and Institute of Labor)

Purpose: To study the effects of highly speeded tests in terms of exaggeration of apparent racial differences

Subjects: 4, 5, and 6th grade Negro and white students

Methods: Intelligence tests were administered with varying time limits. Time limit scores were related to race, performance, and other ability measures.

Major findings thus far: Inconclusive

Date initiated: September, 1966

Additional staff: Lorraine Selander, Research Assistant

Title: SALI: Speech and Language Index, A Diagnostic and Prognostic Profile

Principal investigators and departments: Frances Johnson (Speech and Hearing Clinic), Harold A. Peterson, University of Tennessee

Purpose: To collect speech and language indices and other observations pertinent to diagnosis and prognosis (judgments) of speech and language deficits in children. These data will be used in the construction of a typological classification for describing and classifying the severity of the child's communication problem, charting his progress in therapy, and ultimately, measuring therapy effectiveness.

Subjects: Approximately 300 primary-grade school children with speech and language deficits to some degree or other.

Methods: The standardized tests and observations will be weighted according to importance of deviations from "normal" speech and language development by multiple regression correlation with judged severity of the speech and language difficulty. The judgement of severity is made by experienced speech pathologists currently working with the child in therapy.

Major findings thus far: First set of raw data collected, but analysis not yet complete.

Preliminary findings gave high correlation between weighted scores and severity judgements.

Publication references and/or plans: Plan to submit to Journal of Speech and Hearing Research.

Cooperating or supporting groups: Schools in which senior student-clinicians do practice teaching.

Date initiated: Spring, 1966 Estimated terminal date: Winter, 1968

Additional staff: Assistance of supervising speech clinicians in the various schools.

Title: Achievement Measures Project

Principal investigators and departments:

Thomas S. Baldwin (Voc. Tec. Ed.)
James B. Jones, Jr. (Voc. Tec. Ed.)

Purpose: Development of Achievement and performance test in vocational and technical areas.

Subjects: Graduates of one year post high school vocational schools in the areas of: Electrical Installation and Maintenance; Radio and TV Servicing; Air Conditioning, Heating and Refrigeration; Automotive Mechanics; and Machine Shop. Graduates of two year technical programs in Data Processing and Electronics subjects last year were from schools in Georgia, South Carolina, North Carolina, Connecticut, New Jersey, and Delaware.

Major findings thus far: Statistical analysis is in process.

Publication references and/or plans: Report will be published in 1969.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: March, 1966 Estimated terminal date: 1969

Title: Idiographic Research Project

Principal investigators and departments:

William Hurder (Institute for Research on Exceptional Children)
Alex Bannatyne (Special Education)
James Chalfant (Special Education)
Margaret Scheffelin (Special Education)

Purpose: To investigate thoroughly the problems of children with learning disabilities and the best remedial techniques to be used with them.

Subjects: Children with specific learning disabilities will be individually selected for the study.

Methods: Complete diagnosis of each child's problems.

Cooperating or supporting groups: Children's Research Center

Date initiated: September, 1967

Additional staff: Two research assistants

Title: The Blind Learning Aptitude Test (BLAT)

Principal investigator and department: T. Ernest Newland (Edl. Psych.)

Purpose: To complete the standardization of a test of learning aptitude for blind children, age 6 upwards.

To explore certain relationships among variables involved - particularly different kinds of information yielded by devices on learning aptitude ("intelligence") and measured school achievement.

Subjects: Presently have data on 961 blind subjects. Blind is interpreted to mean "educationally blind" - needing to learn by means of braille.

Methods: Data ultimately will be from 12 states - 5 midwestern, two on each coast, and three southern states. All data obtained by means of individual testing.

Major findings thus far: K - R₂₁ - .93 Test-retest (N - 92)
7 month interval - .89

Publication references and/or plans: To be published as a test.
The research findings will be reported in articles.

Cooperating or supporting groups: U. S. Office of Education

Date initiated: 1966 Estimated terminal date: 1968

Additional staff: Research Assistants:
 Thomas Anderson
 Carole Burden
 Harvey Thornburgh

Title: The MMPI as a Selection Device in Education

Principal investigator and department: C. H. Patterson (Edl. Psych.)

Purpose: To study the validity of the MMPI (Minnesota Multiphasic
 Personality Inventory) as a screening device in teacher
 education.

Subjects: Undergraduates in education

Methods: Comparison of the results on the MMPI with evaluations based
 on interviews.

Date initiated: January, 1966 Estimated terminal date: January, 1968

Title: Computer Assisted Instruction in Testing and Teaching Mathematics

Principal investigator and department: Andrea Rothbart (Curr. Lab.)

Purpose: To investigate how computer assisted instruction can be used effectively in testing and teaching mathematics.

Subjects: Math 201 students

Major findings thus far: Several programs have been written and will be tested in the near future.

Date initiated: September, 1967

Additional staff: Don Lund, Research Assistant

Title: Short-term Memory in Retarded and Normal Children

Principal investigator and department: Keith G. Scott (Psychology, Children's Research Center, and Institute for Research on Exceptional Children)

Purpose: To investigate the development of memory in retarded and normal children with a view to providing information to test constructors and others.

Subjects: Retarded children and normal children of elementary and preschool age. Normal children are tested to provide comparative data and data on normal development when this is not already available.

Methods: The procedure typically consists of testing the children individually for a number of brief (4 - 10 minute) sessions. The child plays a game in which correct recalls are rewarded with a token that can be exchanged for a small trinket or a piece of candy. A small trailer is utilized for the testing.

Major findings thus far: Retarded children have a characteristic weakness in their short-term memory. The cause of this forgetting is interference by previously learned material.

Publication references and/or plans: Research and theory in short-term memory. In International Review of Mental Retardation N. R. Ellis editor, Vol. III, Academic Press 1967.

Date initiated: 1967 Estimated terminal date: 1971

Additional staff: Research Assistants:
Richard Urbano
Laraine Masters
Merilee Lewis

Research Associate:
Marcia Strong Scott

Title: Sound-Blending Abilities of Children

Principal investigators and departments:

Thomas H. Shriner (Children's Research Center and Speech)
Margaret Scheffelin (Children's Research Center)

Purpose: To empirically test one subpart (sound blending) of the Illinois Test of Psycholinguistic Abilities in children.

Subjects: 150 children, 50 at each of three levels, kindergarten, second grade, and fourth grade.

Methods: Eighteen words were selected from the sound blending subpart of the Revised Illinois Test of Psycholinguistic Ability of Children. Nine words have a single segmentation and nine have a double segmentation. The segmentation (interval) between the phonemes was systematically varied and constitute the treatments effect in a treatment by levels by word design. The five treatments are as follows: 250 milliseconds, 500 milliseconds, 750 milliseconds, one second, and two seconds. The levels consist of 150 children, 50 of kindergarten age, 50 of second grade age, and 50 of fourth grade age. The segmentation was accomplished by splicing various interval sizes (measured in milliseconds) between the phonemes. The phonemes were segmented by a mature, experienced female phonetician reading the phonemes independently of each other. Although there are certain disadvantages to this method, such as alteration of stress, duration, etc., it was selected as the first avenue of study because of the difficulty of segmenting phonemes in connected speech.

All recordings were made by high quality recording equipment, Magnecord PT-6 and M90 equipment at 15 ips with an Alter M-11 microphone. The speaker was situated in an adjacent sound treated room at the time the original 18 words were recorded. From the original, five master tapes, one for each of the five treatments, were constructed. The 18 words were randomized for each of the treatments. Ten different children at each level will participate in only one treatment. If room ambient noise level indicates an unsatisfactory signal-to-noise ratio as measured on the A and B bands of a B and K Type 2203 sound level meter (Type 4131 condenser microphone), the words will be presented via earphones from a stereo tape recorder.

Publication references and/or plans: Probably Journal Speech, Hearing Research

Cooperating or supporting groups: National Institutes of Mental Health

Date initiated: November, 1967 Estimated terminal date: January, 1968

Title: An Analysis of the Relationship Between Body Type and Personality Traits of College Women

Principal investigators and departments:

Mary Slaughter (Department of Physical Education for Women)
Olive Young (Department of Physical Education for Women)
Laura Huelster (Department of Physical Education for Women)

Purpose: To determine the relationship between body types of women (as measured by Sheldon) and personality traits as measured by Cattell's 16 PF and Gough's CPI.

Subjects: 157 freshmen and sophomore women

Methods: experimental
statistical techniques used: correlation
canonical correlation
discriminant analysis

Major findings thus far: The data are in the process of being analyzed

Date initiated: January, 1967 Estimated terminal date: June, 1968

Additional staff: Nora Liu, Research Assistant

Title: A Generalizability Approach to Correction for Attenuation

Principal investigator and department: Kenneth J. Travers (Sec. & Cont. Ed.)

Purpose: The concepts of generalizability theory are applied to the correction for attenuation problem. Formulas are devised to estimate correlations between universe scores.

Methods: Components of variance and covariance are obtained by means of multivariate analysis of variance programs devised by the author.

Major findings thus far: Formulas are obtained for the elementary single facet designs.

Publication references and/or plans: Publication in an appropriate measurement journal.

Cooperating or supporting groups:

Stanford University and OE Grant OE 6-10-268
U. S. Office of Education Grant OE 6-10-268

Date initiated: December, 1966 Estimated terminal date: June, 1968

Center for Instructional Research and Curriculum Evaluation (CIRCE)

Staff: J. Thomas Hastings
Robert E. Stake
James L. Wardrop

Members of the CIRCE staff are currently engaged in a number of developmental research projects. Their formal roles in the projects have to do with educational-evaluation strategies and practices. The following projects are among those in which they are most active:

Educational Products Information Exchange (EPIE). This group has had planning funding from several sources, public and private, but is moving toward self-supporting activities. The general purpose is to afford educators documented descriptions and judgments concerning educational products ranging from overhead projectors to science curricula. The purpose is to allow educators to make use-decisions based upon explicit information.

Biological Sciences Curriculum Study (BSCS). A group of biologists funded since 1958 by NSF (about \$10,000,000) for the general purpose of improving biological education throughout the schools but with past emphasis upon the secondary level. For several years CIRCE has been directly involved in BSCS endeavors.

Title III Projects. These school-based "change projects" (USOE) are being pushed for more systematic evaluation than previously. Professor Stake of CIRCE is active in the formulation of plans and their implementation.

Commission on College Geography (CCG). A NSF-funded developmental group with a three-year history of focusing upon improvement of geography education at the college level in both liberal arts and specialist training. CIRCE is central in their evaluation activities and is helping with the processes of evaluation role decisions, data collection and processing, and judgement making.

Tri-University Project on Elementary Education, Evaluation Program (Tri-UP). The Tri-UP, USOE funded, is conducted by New York University, the University of Nebraska, and the University of Washington. The over-all goal is change in the training of elementary-education personnel, both preservice and inservice. CIRCE has been and will continue to be very active in the evaluation aspects of the total program even though the Evaluation Program is directed by Dr. Gabriel M. Della-Piana, University of Utah.

In addition to these formal involvements, CIRCE is playing an active part in terms of consultation and advisement on developmental and evaluative strategies and tactics for a number of other groups, including the Industrial Arts Curriculum Project, Ohio State University; the High School Geography Project, Boulder, Colorado; the Consortium for Social Sciences Education, Boulder, Colorado; Project Impact, an evaluation of NDEA Institutes under the aegis of the Consortium of Professoral Associations for Study of Special Teacher Improvement Programs, Washington, D.C.; the establishment of a curriculum development and research center in the Metropolitan School District of Washington Township, Marion County, Indiana; the Elk Grove, Illinois, school project on Individualized Program Instruction.

Office of Testing and Research University of Illinois

Staff: John Paraskevopoulos

The Office of Testing and Research has been conducting a series of studies to (a) describe academic and non-intellective characteristics of the student body at the undergraduate and graduate levels, and (b) to improve admission procedures and validate current admissions policy at the Urbana-Champaign, Chicago Circle, and Medical Center campuses.

The following studies are currently underway:

Characteristics and Performance of Graduate Students at the University of Illinois.

- a) To describe the graduate student body along demographic and intellective variables and to identify factors correlated with academic performance, at the graduate level.
- b) To describe the Fall 1963 entering graduate students in terms of academic and demographic characteristics and to follow-up their academic progress at the University of Illinois through the Fall 1967 term.

Exploration of Admissions Models

Predictive value of ACT subtests scores versus composite score; high school grade point average versus High School Percentile Rank; high school counselor's recommendation.

Academic Achievement of Students with Discrepant Admissions Scores

To describe the academic performance of students with high ACT scores but low HSPR or low ACT scores and high HSPR.

Intra-University Student Mobility

To explore patterns of inter-college transfers.

Non-intellective Variables as Predictors of College Performance

To determine changes in students' academic and extracurricular activity plans and perceptions of university environment.
To determine to what extent self-reported non-intellective characteristics of students correlate with college achievement. To explore ways to utilize discriminating non-intellective factors in establishing priority for admission.

Freshman Profile

A thorough description of entering freshmen by campus and college, providing data on academic (ACT scores, HSPR etc.) and non-intellective (goals in attending college, extracurricular plans, high school achievements, etc.) factors.

Proficiency Examination for College of Nursing at the Medical Center

Item analysis of a battery of approximately 8500 items to identify the most suitable items to be used for Proficiency Examination by the College of Nursing. To validate the test and to establish cutoff points for giving credit.

Achievement Levels of Students with Culturally Deprived Backgrounds

Identification of key factors which are associated with academic achievement of culturally deprived students at the University and as they relate to admission.

Attrition Study

To follow-up students not returning to a subsequent semester or quarter to determine reasons why students who have not been dropped or graduated fail to return to the University.

Performance of Foreign Students

To describe the academic performance of foreign students and to evaluate present procedures of selection.

Grading Patterns

To describe grade distributions by course level, department, instructors' rank, etc. on a university-wide basis and to determine changes of grading patterns.

Follow-up Studies

Eight- and ten-semester follow-up studies for Urbana-Champaign campus and three- and five-quarter follow-up studies for Chicago Circle campus.

Measurement and Research Division of The Office of Instructional Resources

Staff: Elwood Leslie
Larry Aleamoni
Shushila Singhal
Donald Heil
William Stallings
Susan Feldman

Research Assistants:
Ruth Awe
Edward Wood
Leonard Levitz
Janice Monk
Lee Malaney

The Measurement and Research Division of the Office of Instructional Resources is continuously involved in research projects of considerable quantity. At any one moment in time there are some 40-50 different research projects underway, generally in the area of instructional problems and evaluation. Currently, the major categories of such research includes:

- (1) language learning and evaluation
- (2) validity studies of placement and proficiency systems
- (3) evaluation of instructional systems by students
- (4) non-intellective factors affecting college success
- (5) foreign student success on American campuses
- (6) the effects of different types of evaluation procedures on learning.

ADDENDUM

Title: Physical Education Curriculum Project

Principal investigators and departments:

Buelah Drom (Department of Physical Education for Women)
Diane Wakat (University High School)(Girls)

Purpose: Physiological and Psychological development through a new physical education curriculum for girls.

Subjects: University High School freshmen and sub-freshmen girls

Methods: Test-retest of physical, physiological, psychological, sociological items related to personality and perception with physical activity as means (content) and physical ability as the foundation. Curriculum in physical education for girls designed for our culture and female role in society.

Cooperating or supporting groups:

University Curriculum Laboratory
College of Education
Department of Physical Education for Women

Date initiated: September, 1967 Estimated terminal date: 1972

Title: Experiential Roots of Intelligence and Motivation

Principal investigator and department: J. McV. Hunt (Psychology and Elementary Education)

Purpose: To synthesize the disparate evidence from such sources as animal behavior, physiology and physiological psychology, child development, learning, into a coherent body of empirically based theory about the role of environmental circumstances encountered in the development of intelligence and motivation.

Methods: Starting with review articles in each of the various domains, going back to the original sources cited, organizing the evidence around principles or changes in existing principles that are required, and presenting as coherent a picture as can be created.

Cooperating or supporting groups: National Institute of Mental Health

Date initiated: July, 1962

Title: Intellectual Development and Orphanage Experience

Principal investigator and department: J. McV. Hunt (Psychology and Elementary Education)

Purpose: To test a complex hypothesis of the nature of the encounters with circumstances that foster psychological development in early infancy.

Subjects: Infants being reared in the Orphanage of the Pahlavi Foundation in Tehran

Methods: Baseline developmental data are being obtained on children developing under the traditional regime of the orphanage with the Uzgis-Hunt Ordinal Scales and with the Cattell infant scales. With the ordinal scales, what we do is to ascertain the ages at which each of several landmarks of development make their appearance, and with the Cattell scales, we determine developmental age every third month. We then add the regime of auditory and visual inputs and the schedule of activities reinforced by these inputs, and test the developmental rates of the new group. This sequential approach has certain defects, but it avoids the well-known tendency for those in charge of control groups to copy the enrichments for the experimental groups.

Cooperating or supporting groups: The Pahlavi Foundation and the Orphanage of this foundation located in Tehran

Date initiated: Summer of 1966

Estimated terminal date: August, 1969, but hope to get support for additional years from the NIMH.

Additional staff: Research associates and assistants are students of the University of Tehran, and are under the direction of Mrs. Archer of the Tehran Research Unit, which is a joint creature of the University of Illinois and the University of Tehran.

Title: S - R (situation-reaction) Inventories of Traits

Principal investigators and departments: J. McV. Hunt (Psychology and Elementary Education) and N. S. Endler

Purpose: Our studies are showing that the variance attributable to the situations for which the Subjects report their responses is as great or greater than that attributable to individual differences per se and that the proportions of the variance attributable to the various interactions are larger than those attributable to either main source. Such traits as anxiety and hostility and honesty vary considerably in the proportions attributable to situations and to individual differences across situations.

Subjects: More than a thousand college and high school students from various parts of Canada and the USA.

Methods: Each subject is presented with an inventory in which the situations are specified and described, and he is asked to report the degree to which he would manifest each of a number of responses in that situation. These reported responses are then analyzed using analysis of variance, and the variance attributable to subjects, situations, and responses and their interactions is partitioned. We have also factor analyzed both situations and responses to arrive at categories of subjects who are prone to manifest specified categories of response in specified categories of situations.

Major findings thus far: See purpose above

Publication references and/or plans: Several and several in press.

Cooperating or supporting groups: National Institute of Mental Health

Estimated terminal date: April, 1968

Title: National Coordination Center for the National Laboratory of Early Childhood Education

Principal investigators and departments:

J. McV. Hunt (Psychology and Elementary Education)
Celia Lavatelli (Elementary Education)
Project initiated by Dean Rupert Evans

Purpose: The Coordination Center is responsible for fostering collaboration among the centers in research, for fostering the validation of innovations in early childhood education, and for facilitating the dissemination and adoption of validated innovations in the practice of early childhood education (from birth to 8 years). The Coordination Center also has the responsibility for assessing the value of all those innovations that receive public knowledge and interest.

Cooperating or supporting groups: Arizona Center for Early Childhood Education
University of Arizona, Tucson; Director: Marie Hughes; Assoc. Dir.:
Ralph Wetzel

Center for Early Childhood Education at the University of Chicago
Director: William Henry

Center for Early Childhood Education at Cornell University, Ithaca,
New York, Director: Henry Ricciuti

Demonstration and Research Center in Early Education, George Peabody
College for Teachers, Nashville, Tenn. Director: Susan Gray,
Associate Director: James O. Miller

Center for Early Childhood Education at Syracuse University
Syracuse, New York, Director: William Meyer; Assoc. Director:
Vernon Hall

Date initiated: March, 1967

Estimated terminal date: Although the Center is funded one year at a time, it is the intent of the Office of Education to have it developed as a permanent institution.

Additional staff: Dr. Gordon Hoke, Coordinator of Field Services

Title: Infant Intellect and Experience

Principal investigators and departments; J. McV. Hunt (Psychology and Elementary Education) and Ina C. Uzgiris

Purpose: To construct, if possible, ordinal scales of psychological development during the first two years of infancy, the ordinal scales to be derived at least indirectly from the observations of Jean Piaget.

Subjects: Some 200 infants born in Champaign and Urbana. 84 of these served in the final study of the ordinality of the series of landmarks in psychological development, and demonstrated a remarkable degree of ordinality.

Methods: Consisted of some five steps: (1) Identifying from the literature the promising landmarks of infant reactions to various situations, (2) Assessing the ease with which each of these could be elicited, the reliability of observer identification, and the test-retest reliability over a period of 48 hours, (3) Assembling six series of readily elicited and easily identified landmarks, (4) A second study of observer and retest reliability with a provisional ordering of the landmarks, and (5) the ordinality study based on both percentage passing and a short-term (a month or two) change.

Major findings thus far: Six ordinal scales in which the index of ordinality is surprisingly high.

Publication references and/or plans: To be published: ORDINAL SCALES OF INFANT PSYCHOLOGICAL DEVELOPMENT by Ina C. Uzgiris and J. McV. Hunt, probably as a Monograph of the Society for Research in Child Development. Already Published: Six Sound-Cinemas, one for each of the six ordinal scales.

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